

2007-2008 Annual Report

MISSOURI DEPARTMENT OF CONSERVATION



Serving nature and you™



Annual Report



Missouri Department of Conservation
Fiscal Year July 1, 2007 to June 30, 2008

Contents

Annual Report Summary	4
Missouri State Constitutional Language	8
The Conservation Commission, Director and Mission Statement	10
Conservation at a Glance	11
We Listen to Missourians	12
What Missourians Say About Conservation	13
The Economics of Conservation in Missouri	14
Hunting and Fishing	15
Wildlife Recreation	16
Forestry and Wood Products	17
Our Pledge to Serve Missourians	18
Bringing the Goals to Life	19
Conserving Plants, Animals and Their Habitats	19
Protecting Clean and Healthy Waters	27
Promoting Healthy Trees and Forests	28
Preserving Missouri's Outdoor Recreation Heritage	30
Teaching Missourians About Fish, Forest and Wildlife Resources	35
Supporting Conservation in Our Communities	37
Helping Private Landowners Advance Conservation	39
Serving Nature and You on Conservation Areas	42
Accounting for Department Operations	43
Department Organization and Administrative Descriptions	45
Department Regions and Units	46
Department Organizational Chart	47
Director's Office and Department Divisions	48
Conservation by the Numbers	79
Actual Funds Available and Disbursements	80
Number of Deer Harvested by County	81
Number of Turkeys Harvested by County	82
Acres of Conservation Land by County	83
Payment In-lieu of Taxes (PILT) by County	84
County Aid Road Trust (CART) Program	85
Capital Improvement Projects Funding by County	86
Number of Deer and Turkey Permit Holders by County of Residence	87
Number of Fishing Permit Holders by County of Residence	88
Number of Small Game Permit Holders by County of Residence	89
Number of Landowner Deer Permit Holders by County of Residence	90
Number of Landowner Turkey Permit Holders by County of Residence	91



MISSOURI DEPARTMENT of CONSERVATION

Annual FISCAL YEAR 2007-2008 Report



This summary of the Annual Report highlights the Conservation Department's accomplishments and expenditures from July 1, 2007, through June 30, 2008. These accomplishments are based on the nine goals established in *The Next Generation of Conservation*.

HEALTHY FORESTS

New guidelines help MDC manage forests

MDC is revising and refining the way it manages forests. The Forest Land Action Guidelines help natural resource managers evaluate, understand and sustainably manage Missouri's forest and woodland communities.

Master Logger Certification

MDC helped develop the Missouri Master Logger Certification program. We awarded a \$20,000 grant to the Missouri Forest Products Association to help start this volunteer program, where a logger agrees to uphold the standards set by the program. The state's fish, forest, wildlife, soils, water and air will be better protected when harvesting is done by certified loggers.

Monitoring forest health

The Forest Health Program is a cooperative effort between MDC and other state and federal agencies to conserve Missouri's forest resources by monitoring and evaluating

forest health and providing forest health management information to Missouri residents. Monitoring activities document and evaluate ongoing threats to forest health.

CLEAN WATER

Stream Team

The Missouri Stream Team program continued to grow. There are more than 3,700 teams whose volunteers spent 197,460 hours working on their adopted streams. Since the program began in 1989, volunteers have spent more than a million hours protecting and improving Missouri streams.

Stream Stewardship Trust Fund

The Stream Stewardship Trust Fund is available to restore, enhance and/or protect stream systems and associated riparian habitats. The program and funds are administered by the Missouri Conservation Heritage Foundation, and MDC staff apply for grants. In FY08, seven projects costing \$467,000 were approved to protect 65.8 acres of stream channel and 133.5 acres of riparian corridor.

Effective contaminant monitoring

MDC initiated discussions with the Missouri departments of Natural Resources and Health and Senior Services to explore ways to more efficiently collect key fish-contaminant information. Through cooperation on fish collection and sample analysis, we have increased the amount of information collected, with no increase in cost to the public. We also have shortened the time it takes to get this information to the public in the form of fish consumption advisories.



COMMUNITY CONSERVATION

Volunteer fire departments

MDC, in cooperation with the U.S. Forest Service, provided more than \$376,748 in grants to more than 183 volunteer fire departments. These grants help fund protective clothing, equipment and training.

Meat donation program

Conservation agents coordinate and support the Share the Harvest program with the Conservation Federation of Missouri, local charitable organizations and local meat processors. During FY08, approximately 5,569 hunters donated 260,908 pounds of venison.

Community Assistance Program

Through the Community Assistance Program (CAP) and the closely related Corporate and Agency Partnership Program (CAPP), MDC enters into agreements (usually 25-year) with cities, counties, state and federal agencies, businesses, foundations, schools and colleges to provide fisheries management at existing lakes and ponds, and to cooperatively develop and maintain facilities for anglers and boaters at lake and stream areas. MDC has agreements with 118 partners for the cooperative management of 158 public lakes (9,634 acres of water), 42 stream-access areas, four lake-access areas and six aquatic resource education ponds.



PLANTS & ANIMALS

Quail and grassland-bird habitat

The status of quail, prairie chicken and other grassland bird populations and efforts to reduce their decline remain top MDC priorities. The Department completes approximately 70,000 acres of quail and grassland-bird friendly habitat work on conservation areas each year.

Natural communities

We are emphasizing the restoration and management of productive natural communities. We actively managed habitat on 20,607 acres of grassland/prairie, 37,745 acres of

marsh/wetlands, 11,026 acres of glades, 48,223 acres of forest, 18,084 acres of savannas and 18,539 acres of old field.

River basin management

Staff participated in working groups to implement ecosystem-based management necessary for the conservation and enhancement of natural and recreational resources of the Missouri, Mississippi and White rivers. They helped direct the implementation of \$54 million available through the Missouri River Fish and Wildlife Mitigation Project for habitat restoration, \$16.8 million available through the Mississippi River Environmental Management Program (EMP) for biological monitoring and habitat restoration, and \$10 million available for planning efforts within the proposed Mississippi River Navigation and Ecosystem Restoration Program.

The Statewide Conservation Genetics Program

The productivity and survival of Missouri's plants and animals depend on genetic diversity. Through DNA analysis, rare species can be protected, fishing can be improved, hatchery strains can be selected and species can be restored. DNA often can be used to identify species, sources and sometimes "parents" of animals and plants. Examples of species studies include black bass, shortleaf pine and hellbenders.



OUTDOOR RECREATION

New youth fishing program begun

GO FISH! staff and volunteers taught fishing and environmental stewardship to St. Louis children through 249 programs. Free fishing equipment was given to more than 2,200 anglers after successful completion of programs.

Helping more Missourians enjoy the outdoors

Both the Hunting Method Exemption Program and the Group Fishing Program are designed to assist disabled hunters and provide opportunities for educational or rehabilitation groups to experience fishing. During FY08, we issued 3,055 hunting method exemptions to help disabled hunters. We also issued 260 group-fishing permits to help Missourians who otherwise might not be able to participate and learn about outdoor fishing.

Missouri National Archery in the Schools Program

MDC—in collaboration with the Conservation Federation of Missouri—is the Missouri coordinating agency for the NASP. By the end of 2008, more than 40 Missouri schools will have adopted this program in fourth- to 12th-grade physical-education classes. Many of these schools received reimbursement grants up to \$500 toward NASP-approved archery equipment, and more than 5,500 students experienced the program.

New hunters and anglers

Staff and volunteers provided more than 1,500 instructional programs in hunting, fishing, trapping and shooting sports to more than 45,000 people. We offered more than 1,000 Hunter Education classes, certified 25,288 students and piloted an online Hunter Education training module.

PLACES TO GO

Public lands equestrian use

Horse riding is a popular form of recreation. We developed a joint statewide mail survey of horse-riding enthusiasts in cooperation with the Missouri Department of Natural Resources, National Parks Service and the U.S. Forest Service. It was mailed to Missouri horse owners and handed out to riders at major trail rides and through outfitters. Results will help to develop a plan for equestrian use on public lands in the state.

Land management

MDC conducted habitat management activities on approximately 180,000 acres of public land. Staff spent nearly 323,862 hours on area maintenance.

Adopt-A-Trail

Adopt-A-Trail volunteers monitor, maintain and help to enhance trails and trailheads. In FY08, volunteers spent 963 hours on conservation-area trails.

CONSERVATION EDUCATION

“Discover Nature—Schools” launched

To make our educational offerings more recognizable, programs for families, women and schools will be known under the “Discover Nature” umbrella. The new middle-school unit for that program was launched statewide. Seventy-one schools with 3,041 students received grants to participate. Field trip grants helped 22,204 students at 194 schools get outdoors. Outdoor Classroom grants were awarded to 27 new schools. Grants to schools exceeded \$202,000.

Twin Pines Conservation Education Center

Twin Pines Conservation Education Center in Shannon County opened this year. It places a special emphasis on the history of the Ozarks’ timber industry. Displays there include vintage logging equipment, a log cabin and an early 20th century schoolhouse.

Helped citizens discover, use and enjoy the outdoors

More than 1 million visitors experienced our conservation nature centers and shooting-range/outdoor-education centers.

These facilities offered a wide variety of programs, with more than 300,000 participants.



LANDOWNER ASSISTANCE

Financial assistance

Nearly \$1.18 million in cost-share funds went to 634 private landowners to implement habitat management practices for fish, forest and wildlife. The funds helped install 1,104 conservation practices, impacting nearly 40,000 acres.

Partnerships support landowners

Staff developed 35 partnerships with federal, state and non-governmental organizations. These partnerships helped MDC enhance technical and financial assistance and equipment support to landowners interested in improving fish, forest and wildlife resources. One example is MDC assisted Missouri USDA with developing and applying \$150 million in Farm Bill conservation programs.

Technical assistance

MDC provided timely and responsive service through 41,308 rural and urban landowner contacts, including 16,987 on-site visits. Landowners were assisted with habitat management plans. Staff also answered 5,025 requests for wildlife nuisance and/or damage assistance, including 1,005 on-site visits.

ACCOUNTING FOR DEPARTMENT OPERATIONS

Listened to Missourians

We employ a variety of scientifically sound measures to assess public opinions, expectations and recreation participation. This information guides decisions about regulations and fish, forest and wildlife management. In FY08 there were 58 activities that involved 92,365 people, which included public information surveys, focus groups and public meetings.

Tracked strategic plan accomplishments

This was the second fiscal year of tracking accomplishments of *The Next Generation of Conservation*, MDC’s strategic plan. The plan identifies nine goals, 28 results and 61 specific actions that MDC will work with Missourians to achieve. New developments include the ability to generate reports showing annual and cumulative accomplishments.

Internal audit reports

Internal auditors performed seven internal audits to ensure that public funds were expended in a responsible manner. There were no major findings.

What the Money Bought—Fiscal Year 2008

County Assistance Payments—\$1,451,829 Included payments to Missouri's counties for levee and drainage district taxes, forest cropland payments, payments in lieu of real estate taxes and county aid road trust payments. Since 1980, more than \$13.11 million has been paid to Missouri counties in lieu of taxes.

Capital Improvements—\$16,165,002 Work included fish hatchery improvements, river access development, wetland renovations, shooting range construction, development of nature centers, land acquisition transactions and renovation and repair of facilities statewide.

Fisheries—\$12,444,886 Maintained and improved sport fish populations, aquatic biodiversity and aquatic habitats. Managed 906 lakes and 40 stream management areas for public fishing, and provided stream and lake management assistance to over 8,600 private landowners. Stocked more than 11 million fish in public lakes and streams.

Forestry—\$16,071,586 Fostered a healthy and growing forest resource. Examples include distributing 5 million seedlings for planting to nearly 12,400 landowners, provided forestry assistance on over 50,000 acres and facilitated EQIP projects totaling over \$725,000 on private land, managing 438,700 acres of public forest land, monitoring insect and disease threats and facilitating development of the state's forest industry.

Wildlife—\$16,640,868 Worked toward ensuring wildlife populations are in harmony with habitat and human enjoyment. Managed more than 525,000 acres of public land and implemented programs to maintain and restore natural communities and wildlife diversity across Missouri's landscape.

Outreach and Education—\$15,412,405 Sustained and nourished Missourians' connection to the outdoors through more than 1 million visitors to conservation nature centers and shooting-range/outdoor-education centers, nearly 500,000 subscribers to the *Missouri Conservationist* magazine, web-based information, grants to schools exceeding \$202,000, conservation curriculums for schools, outdoor skills programs and hunter education.

Private Land Services—\$8,992,253 Helped private landowners to achieve long-term conservation of natural resources and their land-use objectives. Delivered nearly \$1.2 million in cost-share funds to private landowners; provided on-site technical assistance to 10,602 private landowners; improved habitat for quail and grassland songbirds on more than 27,000 acres of private land; helped landowners enroll almost 2,415 acres into the Wetland Reserve Program; and assisted 5,025 private landowners in controlling nuisance wildlife.

Protection—\$13,879,942 Paid for law enforcement in every county as well as resource management, information, education and public service contact activities conducted by 167 conservation agents who directly contacted more than 675,000 people. Coordinated the Share the Harvest Program where more than 5,500 deer hunters donated more than 260,000 pounds of venison to less fortunate Missourians. Conservation agents, along with 1,788 volunteer instructors, conducted 968 hunter education classes, certifying 25,288 students.

Resource Science—\$11,677,559 Provided the science-based information needed to effectively manage Missouri's natural resources. Resource Science monitors the status of Missouri's fish, forests, plants and wildlife, recommends conservation actions, evaluates these actions and reports the results. In addition to surveys of fish and wildlife, tens of thousands of Missourians were contacted to determine their outdoor activities and opinions about conservation programs.

Regional Public Contact Offices—\$3,199,101 Provided regional public contact offices.

Administrative Services and Human Resources—\$36,009,544 Paid for human resources, federal reimbursement administration, hunting and fishing permit point-of-sale system, fiscal services, distribution center, print shop, fleet management, vehicle and equipment maintenance centers and information management and technology. Also includes other agency appropriations, Department-wide equipment and other essential services.

Design and Development—\$12,149,619 Provided engineering, architectural, surveying and construction services for conservation programs and maintenance of conservation areas and facilities.

Administration—\$3,198,077 Paid for audits, legal counsel and the coordination of strategic planning, environmental policy development, cultural resource reviews, public involvement and river basin management.

RECEIPTS

Conservation Sales Tax	\$102,940,809
Permit Sales	\$30,797,567
Federal Reimbursements	\$18,563,048
Sales and Rentals	\$7,998,158
Other Sources	\$9,897,979
Interest	\$1,755,844
Total Receipts	\$171,953,404

DISBURSEMENTS

County Assistance Payments	0.87%
Capital Improvements	9.66%
Fisheries	7.44%
Forestry	9.61%
Wildlife	9.95%
Outreach and Education	9.21%
Private Land Services	5.38%
Protection	8.30%
Resource Science	6.98%
Regional Public Contact Offices	1.91%
Administrative Services & Human Resources	21.52%
Design and Development	7.20%
Administration	1.91%

MISSOURI STATE BUDGET

Health & Social Services	36.7%
Education	28.5%
Government Services	21.6%
Transportation	10.0%
Natural & Economic Resources	2.5%
Conservation	0.7%
<i>MDC represents less than 1% of the total state budget</i>	
Total State Budget	\$22,238,018,423

Missouri State Constitutional Language

Section 40(a). Conservation commission, members, qualifications, terms, how appointed-duties of commission-expenses of members.—The control, management, restoration, conservation and regulation of the bird, fish, game, forestry and all wildlife resources of the state, including hatcheries, sanctuaries, refuges, reservations and all other property owned, acquired or used for such purposes and the acquisition and establishment thereof, and the administration of all laws pertaining thereto, shall be vested in a conservation commission consisting of four members appointed by the governor, by and with the advice of and consent of the senate, not more than two of whom shall be of the same political party. The members shall have knowledge of and interest in wildlife conservation. The members shall hold office for terms of six years beginning on the first day of July of consecutive odd years. Two of the terms shall be concurrent; one shall begin two years before and one two years after the concurrent terms. If the governor fails to fill a vacancy within thirty days, the remaining members shall fill the vacancy for the unexpired term. The members shall receive no salary or other compensation for their services as members, but shall receive their necessary traveling and other expenses incurred while actually engaged in the discharge of their official duties.

Source: Const. of 1875, Art. XIV, Sec. 16 (as adopted November 3, 1936). (Amended August 8, 1972)

Section 40(b). Incumbent members.—The members of the present conservation commission shall serve out the terms for which they were appointed, with all their powers and duties.

Section 41. Acquisition of property-eminent domain.—The commission may acquire by purchase, gift, eminent domain, or otherwise, all property necessary, useful or convenient for its purposes, and shall exercise the right of eminent domain as provided by law for the highway commission.

Source: Const. of 1875, Art. XIV, Sec. 16.

Section 42. Director of conservation and personnel of commission.—The commission shall appoint a director of conservation who, with its approval, shall appoint the assistants and other employees deemed necessary by the commission. The commission shall fix the qualifications and salaries of the director and all appointees and employees, and none of its members shall be an appointee or employee.

Source: Const. of 1875, Art. XIV, Sec. 16.

Section 43(a). Sales tax, use for conservation purposes.—For the purpose of providing additional moneys to be expended and used by the conservation commission, department of conservation, for the control, management, restoration, conservation and regulation of the bird, fish, game, forestry and wildlife resources of the state, including the purchase or other acquisition of property for said purposes, and for the administration of the laws pertaining thereto, an additional sales tax of one-eighth of one percent is hereby levied and imposed upon all sellers for the privilege of selling tangible personal property or rendering taxable services at retail in this state upon the sales and services which now are or hereafter are listed and set forth in, and, except as to the amount of tax, subject to the provisions of and to be collected as provided in the “Sales Tax Law” and subject to the rules and regulations promulgated in connection therewith; and an additional use tax of one-eighth of one percent is levied and imposed for the privilege of storing, using or consuming within this state any article of tangible personal property as set forth and provided in the “Compensating Use Tax Law” and, except as to the amount of the tax, subject to the provisions of and to be collected as provided in the “Compensating Use Tax Law” and subject to the rules and regulations promulgated in connection therewith.

(Adopted November 2, 1976)

Section 43(b). Use of revenue and funds of conservation commission.—The moneys arising from the additional sales and use taxes provided for in section 43(a) hereof and all fees, moneys or funds arising from the operation and transactions of the conservation commission, department of conservation, and from the application and the administration of the laws and regulations pertaining to the bird, fish, game, forestry and wildlife resources of the state and from the sale of property used for said purposes, shall be expended and used by the conservation commission, department of conservation, for the control, management, restoration, conservation and regulation of bird, fish, game, forestry and wildlife resources of the state, including the purchase or other acquisition of property for said purposes, and for the administration of the laws pertaining thereto, and for no other purpose. The moneys and funds of the

conservation commission arising from the additional sales and use taxes provided for in S 43(a) hereof shall also be used by the conservation commission, department of conservation, to make payments to counties for the unimproved value of land for distribution to the appropriate political subdivisions as payment in lieu of real property taxes for privately owned land acquired by the commission after July 1, 1977, and for land classified as forest cropland in the forest cropland program administered by the department of conservation in such amounts as may be determined by the conservation commission, but in no event shall amount determined be less than the property tax being paid at the time of purchase of acquired lands.

Source: Const. of 1875, Art. XIV, Sec. 16. (Amended November 2, 1976) (Amended November 4, 1980)

Section 43(c). Effective date-self-enforceability.—The effective date of this amendment shall be July 1, 1977. All laws inconsistent with this amendment shall no longer remain in full force and effect after July 1, 1977. All of the provisions of sections 43(a)–(c) shall be self-enforcing except that the general assembly shall adjust brackets for the collection of the sales and use taxes.

(Adopted November 2, 1976)

Section 44. Self-enforceability-enabling clause-repealing clause.—Sections 40–43, inclusive, of this article shall be self-enforcing, and laws not inconsistent therewith may be enacted in aid thereof. All existing laws inconsistent with this article shall no longer remain in force or effect.

Source: Const. of 1875, Art. XIV, Sec. 16

Section 45. Rules and regulations-filing-review.—The rules and regulations of the commission not relating to its organization and internal management shall become effective not less than ten days after being filed with the secretary of state as provided in section 16 of this article, and such final rules and regulations affecting private rights as are judicial or quasi-judicial in nature shall be subject to the judicial review provided in section 22 of article V.

Section 46. Distribution of rules and regulations.—The commission shall supply to all persons on request, printed copies of its rules and regulations not relating to organization or internal management.

The Conservation Commission and Director

In 1936, the people of Missouri, through the initiative petition process, placed on the ballot and passed language that would create a non-political Conservation Commission with broad authority. The Conservation Commission is vested by the state constitution with responsibility for proper management of the state's fish, forest, and wildlife resources. The four Conservation Commissioners are appointed by the Governor. Their term of office is six years. The Commission is also responsible for hiring the Director.



Mr. Don R. Johnson
Festus
Term: 7/18/2007 to
6/30/2013
Party Affiliation:
Democrat



Mr. William F. McGeehan
Marshfield
Term: 7/11/2005 to
6/30/2011
Party Affiliation:
Republican



Mr. Lowell Mohler
Jefferson City
Term: 7/09/2003 to
6/30/2009
Party Affiliation:
Republican



Mrs. Becky L. Plattner
Grand Pass
Term: 8/7/2007 to
6/30/2013
Party Affiliation:
Democrat

Director



Mr. John Hoskins

Our Mission

To protect and manage the fish, forest, and wildlife resources of the state; to serve the public and facilitate their participation in resource management activities; and to provide opportunity for all citizens to use, enjoy, and learn about fish, forest, and wildlife resources.

Conservation at a Glance

- ▲ We Listen to Missourians
- ▲ What Missourians Say About Conservation
- ▲ The Economics of Conservation in Missouri
- ▲ Wildlife Recreation
- ▲ Hunting and Fishing
- ▲ Forestry and Wood Products



We Listen to Missourians

The Missouri Department of Conservation believes that all Missouri citizens are important and we want to listen and act to earn their trust. Our job is to listen, understand, and personally deliver programs and services in a manner that benefits all Missourians and the fish, forest, and wildlife resources in Missouri.

To accomplish our mission we must listen to Missourians.

We do this in a variety of ways.

- The Conservation Commission meets regularly and anyone may contact the Conservation Commission with comments or request to appear at a Commission meeting.
- The Director of the Conservation Department may be personally contacted at Department headquarters in Jefferson City, by telephone, or electronic mail.
- The Department Ombudsman works with citizens to resolve conflicts and answers a wide variety of questions by mail, telephone, and electronic mail.
- The Department conducts a wide variety of statistically accountable mail surveys, telephone surveys, and focus groups to determine the opinions and attitudes of Missourians about conservation and the Department of Conservation. The Department has conducted attitude, opinion, satisfaction, and participation surveys for over 30 years.
- The Department has eight regional service centers with staff available to assist Missourians with their conservation requests and needs.
- The Department's monthly magazine, free to Missourians who request it, includes a letter-to-the-editor section and an "Ask the Ombudsman" column.
- The Department maintains an extensive internet web page with conservation information, how to contact the Department, and an online comment form.
- The Department conducts frequent public forums to obtain interactive feedback from all Missourians at locations throughout the state.
- Department regulations are formed and discussed in a public setting that invites citizen participation.



What Missourians Say About Conservation

The majority of Missourians feel the Department of Conservation is doing an excellent or good job of providing services to themselves (64%), their families (63%), the community (61%), and the state (67%). Most Missourians say they are either very familiar (21%) or somewhat familiar (65%) with the Missouri Department of Conservation.

Information from the Missouri Department of Conservation and the 2003 Conservation Opinion Survey, University of Missouri.



- Most Missourians report they are interested in Missouri's fish, forests, and wildlife (93%).
- Most Missourians (73%) agree that land should be acquired for fish, forest, and wildlife conservation.
- Most Missourians agree that "It is important for outdoor places to be protected even if you don't plan to visit the area" (91%).
- Most Missourians (79%) agree that the Department of Conservation should make an effort to restore animals that once lived or are currently very rare in the state.
- Most Missourians (82%) agree that the Department of Conservation should help private landowners who want to restore native communities of plants and animals.
- Over three-quarters agree that the Department "should assist communities that want to include trees and green spaces in housing, business, and shopping developments" (79%).
- Almost all Missourians (88%) approve of hunting for food.
- About one-half of Missourians (51%) approve of cutting down trees to make lumber, furniture, or other wood products.
- The majority of Missourians (55%) agree that trapping is OK as long as it is regulated.
- Missourians are outdoor-oriented, with households having one or more participants that enjoy watching television or outdoor programs (82%), read about nature and wildlife (76%), feed birds and wildlife at home (64%), garden (66%), use Conservation Areas (62%), fish (58%), go boating (40%), hunt (34%), target shoot (37%), or volunteer in environmental or conservation groups (15%).
- Time is mentioned as the biggest obstacle to the enjoyment of outdoor activities by Missourians.
- Missourians are a uniquely outdoor-oriented citizenry, with a majority preferring outdoor recreational activities (56%) over reading or watching TV (34%), or structured sports (9%).



The Economics of Conservation in Missouri

The amount of state sales tax revenue generated from fish, forest, and wildlife recreation spending is about the same amount of sales tax revenue received by the Department of Conservation from the one-eighth of one percent Conservation Sales Tax—

Conservation pays its way in Missouri.

Information from the Missouri Department of Conservation, the Missouri Forest Products Association, and the 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

- In Missouri, the total economic impact of fish and wildlife recreation and the forest products industry is \$11.4 billion dollars annually.
- Since 1980, the Department has paid more than \$13 million dollars to Missouri counties in lieu of taxes. In fiscal year 2008, over \$1.45 million was paid to Missouri counties for forest cropland payments, levee and drainage district payments, in-lieu-of-property-tax payments, and county aid road trust payments.
- The forestry and wood products industry in Missouri is an over \$5.7 billion dollar activity and supports 31,700 jobs.
- Missourians and non-residents spend over \$3.3 billion dollars annually related to fish, forest, and wildlife recreation. These expenditures generate \$5.7 billion dollars annually of economic impacts in Missouri.
- The annual expenditures related to fish, forest, and wildlife recreation support 64,186 jobs in Missouri.
- Fish, forest, and wildlife recreation spending generates \$382 million dollars annually of state and local tax revenue.
- In Missouri, 2.9 million residents and nonresidents, aged 16 years and older, participated in fishing, hunting, or wildlife-associated recreation.
- Resident anglers spend 15.3 million days afield, resident hunters 9.2 million, and resident wildlife-watchers 13.4 million days in away-from-home activities, in Missouri. Nonresident anglers add 1.3 million days and nonresident hunters 544,000 days.
- Nonresident expenditures for fishing and hunting in Missouri are well over \$211 million each year. Each nonresident angler and hunter spends an average of \$617 dollars each year in Missouri.
- Deer hunters in Missouri, age 16 years and older, spend \$690 million each year.
- Deer hunting in Missouri generates \$1.1 billion dollars of business activity annually. This results in \$83 million in state and local tax revenue each year.
- Deer hunting expenditures annually support over 11,824 jobs in Missouri.

MISSOURI

hunting and fishing

Hunters	608,000
Anglers	1.1 million
Total Expenditures	\$2.4 billion
Total Jobs Supported	45,939
Earnings from Expenditures	\$1.2 billion
State and Local Tax Revenue	\$269 million
Total Business-Generated Revenue	\$4.2 billion



STATE TAX REVENUE INFORMATION

Hunters and anglers in Missouri generate \$269 million annually in state and local taxes.

JOBS

Hunters and anglers support 45,939 jobs each year.

TAKE A CLOSER LOOK

- More Missourians hunt or fish than the number who attend St. Louis Rams or Kansas City Chiefs games.
- One of every four Missouri residents hunts or fishes.
- Annual spending by hunters and anglers is more than the cash receipts for cattle production, the state's most valuable agricultural commodity.
- The amount of sales tax revenue generated by fish, forest, and wildlife recreation is about the same amount of sales tax received by the Department of Conservation from the one-eighth cent sales tax—in other words, conservation pays its way in Missouri.

CONSERVATION PAYS ITS WAY IN MISSOURI



Information from the Missouri Department of Conservation and the U.S. Fish and Wildlife Service 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

MISSOURI

wildlife recreation

Wildlife-Watchers	2.2 million
Total Expenditures	\$869 million
Total Jobs Supported	18,247
Earnings from Expenditures	\$493 million
State and Local Tax Revenue	\$113 million
Total Business-Generated Revenue	\$1.5 billion



STATE TAX REVENUE INFORMATION

Wildlife-watchers in Missouri generate \$113 million annually in state and local taxes.

JOBS

Wildlife-watching activities in Missouri support 18,247 jobs each year.

TAKE A CLOSER LOOK

- In Missouri, adults involved in wildlife watching would fill Arrowhead Stadium in Kansas City more than 28 times.
- Missourians are outdoor-oriented—each year they spend 13.4 million days in wildlife watching activities away from their home. Two million enjoy observing, feeding, and photographing wildlife near their homes.
- The amount of sales tax revenue generated by fish, forest, and wildlife recreation is about the same amount of sales tax received by the Department of Conservation from the one-eighth cent sales tax—in other words, conservation pays its way in Missouri.



CONSERVATION PAYS ITS WAY IN MISSOURI



Information from the Missouri Department of Conservation and the U.S. Fish and Wildlife Service 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

MISSOURI

forestry and wood products

Total Forested Acres	14 million
Privately Owned Acres	85 percent
Publicly Owned Acres	15 percent
Wood-Using Industry Dollars	\$5.7 billion
Total Jobs Supported	31,700
Wood-Using Industry Labor Income	\$1.2 billion



STATE TAX REVENUE INFORMATION

Forestry and the wood-using industries in Missouri generate \$57 million each year in state sales tax.

JOBS

Wood industry firms and activities in Missouri support more than 31,700 jobs each year.

TAKE A CLOSER LOOK

- Each year about 6 million tree seedlings are planted.
- More than 1 million acres of forests have been added to Missouri's landscape in the last 30 years.
- Forests in Missouri are increasing faster than they are being harvested.
- Most of the forests in Missouri are privately owned.
- Forests are important to Missourians who enjoy outdoor recreation such as camping, sightseeing, watching birds, canoeing, photographing nature, hunting or fishing. Many Department of Conservation areas have campsites or are open for primitive camping.
- Forests in Missouri are essential for healthy streams, clean water, wildlife habitat and environmental stability.



CONSERVATION PAYS ITS WAY IN MISSOURI



Information from the Missouri Department of Conservation and the Missouri Forest Products Association.



Our Pledge to Serve Missourians

The Missouri Department of Conservation's mission, vision and goals communicate our never-ending pledge to serve Missourians and to meet the requirements of the Missouri Constitution (Article IV, Section 40(a) through 46).

Our Mission

To protect and manage the fish, forest and wildlife resources of the state; to serve the public and facilitate their participation in resource management activities; and to provide opportunity for all citizens to use, enjoy and learn about fish, forest and wildlife resources.

Our Vision

- ▲ To have healthy, sustainable plant and animal communities throughout the state of Missouri for future generations to use and enjoy, and to have fish, forest and wildlife resources in appreciably better condition tomorrow than they are today.
- ▲ To have all Missourians understand the relationship and value of plant and animal communities to our social and economic well-being.
- ▲ To have citizens and government agencies work together to protect, sustain, enhance, restore or create sustainable plant and animal communities of local, state and national significance.

Our Goals

A new strategic plan, *The Next Generation of Conservation*, leads the Conservation Department's staff and resources into the future with nine goals. Like the strategic plans that preceded it, *The Next Generation* outlines how the Conservation Department will fulfill its constitutional mandate to serve Missourians by protecting the state's fish, forest and wildlife resources.

The new strategic plan gives our generation of conservationists a path to success. Through partnerships, sound scientific data, respect for public opinion and a dedication to public service, we can fulfill our obligation to protect and manage our natural resources for the benefit of future generations.

The Next Generation Goals

- ▲ Conserving Plants, Animals and Their Habitats
- ▲ Protecting Clean and Healthy Waters
- ▲ Promoting Healthy Trees and Forests
- ▲ Preserving Missouri's Outdoor Recreation Heritage
- ▲ Teaching Missourians About Fish, Forest and Wildlife Resources
- ▲ Supporting Conservation in Our Communities
- ▲ Helping Private Landowners Advance Conservation
- ▲ Serving Nature and You on Conservation Areas
- ▲ Accounting for Department Operations

Bringing the Goals to Life



Conserving Plants, Animals and Their Habitats

Fish passage improvements made

Working closely with a variety of partners which include the U.S. Fish and Wildlife Service, the Missouri Conservation Heritage Foundation and county commissions in Cooper, Hickory and Miller counties, MDC has led efforts to replace low-water crossings with clear-span bridge structures at selected locations in central and south-central Missouri. These efforts are consistent with our Comprehensive Wildlife Strategy and were designed to improve fish passage for the Topeka shiner and Niangua darter, federally listed species, and other native aquatic species.

This past year, we also completed three bridge-replacement survey-monitoring reports from replacement projects on the Little Niangua, Little Tavern and Thomas creeks that had been monitored since 2004. The results showed that barriers to fish passage had been effectively removed, sediment transport and channel stability had been enhanced, and additional habitat was made available for colonization by Niangua darters, as well as by sport fish such as smallmouth bass. At the same time, these projects have benefited the counties and their residents through enhanced bridge safety and reductions in the time and expense invested by county crews in routine debris removal and bridge repairs.

Enforced resource protection laws

MDC enforces wildlife laws to maintain compliance with the *Wildlife Code*, as well as other state laws for the safe public use of MDC-owned lands. Conservation agents contacted 209,000 hunters and anglers in FY08 to ensure compliance and provide regulation information. During these contacts, agents noted 29,800 resource violations, issued 4,100 written warnings and made 8,700 arrests. This resulted in a 93 percent conviction rate, which indicates the high-quality work by agents in the area of resource law enforcement.

Quail and grassland-bird habitat managed, monitored and evaluated

MDC continues to find solutions to declining populations of northern bobwhite, greater prairie chickens and other grassland birds. The status of quail and grassland bird populations and efforts to reduce their decline remain top MDC priorities. In fact, the Department completes approximately 70,000 acres of quail and grassland-bird friendly habitat work on conservation areas each year. We have identified 19 conservation areas as quail emphasis areas where quail habitat management and monitoring are a high priority. We continue to assist private landowners by providing technical and financial assistance on a variety of natural resource projects, including quail and grassland-bird habitat management. In addition, we have established 34 private-land quail focus areas throughout the state in places where landowners are actively managing their property for quail.

We also have monitored quail and bird populations to aid the management evaluation process. MDC leads the recovery efforts to reverse the continued decline of the state-endangered greater prairie chicken. Through a variety of media channels, we have informed citizens of the dramatic land-use and habitat changes which have impacted the quality and quantity of quail, prairie chicken and other grassland-bird species in Missouri. We have formed partnerships with the Missouri Prairie Foundation, Audubon Society of Missouri, Audubon Missouri, Conservation Federation of Missouri, Quail Unlimited, Quail Forever, National Wild Turkey Federation, The Nature Conservancy, Missouri Cattlemen's Association, Missouri Soybean Association, Partners in Flight, state and federal agencies, local municipalities and other conservation organizations to restore grassland/prairie habitats.

Greater prairie chicken recovery plan continued through collaborative efforts

MDC and its Missouri Grasslands Coalition partners continued to focus on implementing the prairie chicken plan. More than a half million dollars was invested to protect additional land, improve habitat on private and public lands, and to share our message with landowners within Grassland COAs. MDC purchased 295 acres within two Grassland COAs at a cost of \$578,000, which included a

\$50,000 donation. Existing long-term agreements, including ongoing USDA program contracts, protected more than 3,500 acres.

During FY08, \$108,000 in Wildlife Diversity funds and \$50,000 in USFWS LIP Tier 2 funds were invested to improve grassland habitat on private lands within priority COAs. Projects completed with these funds included removal of 12 linear miles of hedgerow, removal of scattered trees from nearly 200 acres, 132 acres of fescue or cropland conversion to wildlife-friendly grasses, prescribed fire on 135 acres, exotic plant control on 288 acres and support for implementing improved grazing on 719 acres. Nearly 16,000 acres of MDC and partner-owned grasslands were manipulated.

Specific accomplishments include:

- USDA's Farm Service Agency accepted a proposal to create special CRP/SAFE practice benefiting prairie chickens and other grassland birds, but record-high commodity prices have limited producer interest in this opportunity.
- Staff and volunteers translocated male prairie chickens from north central Kansas to TNC's Wah'Kon-Tah Prairie and tagged females for later translocation with their broods.
- More than 900 Grassland COA landowners received a direct-mail packet that included recovery program promotional materials, news of available assistance programs and a copy of the 30-minute PC Recovery DVD.
- Work with MU agricultural economists culminated with production of a feasibility report on GC partner-identified opportunities to make grassland wildlife habitat practices more economically viable for farmers and other landowners.

Wildlife Damage Management Program continued active role

The Wildlife Damage Management Program provides technical advice to landowners experiencing wildlife conflicts. This is done through an extension-type program with phone calls, mailings, workshops and on-site visits. Training is also provided to MDC staff. This program directly serves more than 4,000 Missouri landowners annually.

The Wildlife Damage Management Program maintains relationships and partners with other agencies and organizations concerned with wildlife damage issues. These include the Missouri Trappers Association, USDA/APHIS-Wildlife Services, Missouri Department of Agriculture, Missouri Department of Natural Resources and the USDA Forest Service.

Internally the program continues to assist Outreach and Education with the Cable Restraint Program, Resource Science with otter and black bear research and other special projects. It also represents the MDC on committees such as the Nuisance Urban Goose Implementation Team, River Otter Task Force, Feral Hog Task Force and Mountain Lion Response Team.

Feral hog eradication program: Feral hogs in Missouri continue to be a concern for MDC. Their destructive behavior, potential for disease transmission and direct competition with native wildlife for food and cover spurred MDC to implement a more aggressive approach to eliminate them.

We began a plan in FY07 that included aerial shooting, day- and night-shooting over bait, trapping and shooting, eradication with trained dogs, and the use of radio-collared "Judas hogs" to locate and kill other hogs. We focused our attention on MDC areas and the land adjoining them.

This year MDC hosted the 2008 National Conference on Feral Hogs in St. Louis. This event was organized by the Wildlife Damage Management Program. The conference drew 190 attendees from 27 states and two countries to discuss the latest research on feral hogs and share pertinent information on eradication and control techniques.

Governor's Feral Hog Task Force: In the fall of 2007 Gov. Blunt created a special task force to address the concerns associated with feral hogs. The task force, co-chaired by MDC and the Missouri Department of Agriculture, was composed of eight additional members, including other state, federal and private organizations. The task force completed a report in April 2008 which outlined a response to the feral hog population in Missouri. The task force recommended the launching of a public-awareness campaign, seeking dedicated state and federal funds for feral hog eradication, increasing penalties for illegally releasing feral hogs, and developing a public- and private-land eradication program.

Natural communities benefited from programs and management

We are emphasizing the restoration and management of productive natural communities that benefit the full range of MDC programs and Missouri landscapes. Our programs and actions promoted the establishment of native-plant communities, which enhance wildlife diversity and ecosystem restoration. We actively managed habitat on 20,607

acres of grassland/prairie, 37,745 acres of marsh/wetlands, 11,026 acres of glades, 48,223 acres of forest, 18,084 acres of savannas and 18,539 acres of old field.

We also enhanced or created 101 miles of edge habitat while managing 14,676 acres of crops for certain wildlife species. This active management achieved desired vegetative conditions, restored natural communities and/or demonstrated appropriate stewardship activities.

Through the Missouri Natural Areas program, 184 natural areas (65,936 acres) have been designated as models for natural-community restoration. During the past year, 70 acres have been delisted from two areas, while an additional 3,300 acres were added into the system through new areas or expansions.

The four new natural areas include:

Razor Hollow Natural Area—923 acres in Warren County within the Daniel Boone Conservation Area. This area features more than 500 acres of significant and exceptional dry chert and limestone/dolomite woodlands; dry-mesic chert, limestone/dolomite, sandstone, and loess/glacial till woodlands; and sandstone glades. Numerous sandstone cliffs and wet-weather waterfalls frame the site's scenic headwater creeks. Three rare amphibian species use the area's habitats. The area is botanically rich and supports a diverse bird fauna. Razor Hollow Natural Area forms a core part of the Missouri River Hills Conservation Opportunity Area (COA) of the Comprehensive Wildlife Strategy.

Spiderlily Natural Area—354 acres in Ripley County within the Mudpuppy Conservation Area. This site features 2.5 miles of the Little Black River and its associated riparian corridor. This stretch of the Little Black River has been designated as one of the "outstanding state resource waters" by the Missouri Department of Natural Resources in 2005. The natural area's aquatic habitats support 60 native fish species and 22 native mussel species, including six rare mussels. Bald eagles and swamp rabbits use the area's bottomland forests. The combination of a high-quality stream and bottomland forests near the boundary between the Ozarks and the Mississippi Lowlands (with a relatively intact watershed) is unusual and worthy of designation.

Niangua River Hills Natural Area—588 acres in Dallas County within the Lead Mine Conservation Area. This area features three units (353, 191 and 44 acres) that contain a variety of high-quality natural communities and four species of conservation concern within the Niangua Basin COA. There are state-significant dolomite-glade and dry-chert woodlands; the opportunity exists here to restore some of the best chert woodlands in the state. Also in this area are two rare orchids, including the small white lady-slipper orchid (found at only two other locations in Missouri). Juxtaposed against the glades and woodlands are a prairie fen, headwater creeks and undisturbed springs. The area supports nearly 300 native vascular plant species.

Brickey Hills Natural Area—221 acres in Ste. Genevieve County within the Magnolia Hollow Conservation Area. This area features two units (51 and 170 acres) that contain state-significant examples of old-growth dry-mesic and mesic-limestone forest. The area contains more than 30 native-tree species and 156 native vascular-plant species. Old-growth trees here have reached large sizes for their species, including a 36-inch-diameter northern red oak, and a 22-inch-diameter Ohio buckeye. Old-growth forests on rich soils are rare throughout Missouri. The site is within the Brickey Hills COA.

Indiana bat study underway in northeast

The federally endangered Indiana bat is being studied at Deer Ridge, Fox Valley and Charlie Heath conservation areas in northeast Missouri, where researchers are looking at bat abundance associated with various timber management practices. The study uses a variety of methods to monitor occupancy and determine home range, foraging and bat-roost locations. In 2001 and 2002 the largest summer aggregation of Indiana bats in Missouri was discovered at Deer Ridge CA.

Since then, small clear cuts, uneven-aged management with small group openings, and retention of snag trees were the dominant practices used to manage the timber resource and create additional habitat for Indiana bats. These same practices will be used at Charlie Heath and Fox Valley CAs in the future. Documenting bat usage of the area prior to and after active timber-management practices are put in place will provide important information about the changes in bat usage as a result of timber management.

This year telemetry work at Deer Ridge CA allowed researchers to locate one roost tree where 150 bats were recorded during an exit count. Fifteen roost trees were located at Charlie Heath CA and 49 bats counted on eight different trees. No Indiana bats were captured during trapping efforts at Fox Valley CA. Home range, flight corridors and foraging areas were determined for individual bats at Deer Ridge and Charlie Heath CAs. The study will continue through 2014, covering post-timber management at Deer Ridge CA and pre- and post-management years at Fox Valley and Charlie Heath CAs.

Lake sturgeon restoration under way

Lake sturgeon, first stocked in the Mississippi River in the 1980s, are just now becoming adults. Radio transmitters implanted in lake sturgeon have shown that adult fish make long migrations during high water. We also have studies under way to learn about the habitats used by small lake sturgeon and the movement of newly stocked fish. Monitoring has begun so we can develop an index of lake sturgeon abundance that can be used to measure population trends through time. We continue to see a lot of movement in tagged fish, and angler reports of catching large lake sturgeon are becoming more frequent.

We stock lake sturgeon annually; in FY08 we added 5,000 7-inch fish to five locations on the Missouri and Mississippi rivers. In addition, MDC field staff captured adult lake sturgeon from the wild in an attempt to spawn Missouri fish. While not successful, we gained valuable information and will continue to try to produce a Missouri lake sturgeon for stocking.

Finally, MDC biologists and conservation agents also conducted "joint patrols" of the Missouri and Mississippi rivers to monitor commercial fishing activity and the harvest of shovelnose sturgeon.

Grotto sculpin recovery efforts continue

We continued recovery efforts in the Perry County karst region in FY08. We completed the first year of a four-year water quality, dye-tracing and educational project. Staff continued to dye traces to delineate the recharge area of the five major cave systems where grotto sculpins are found. We conducted surveys of grotto sculpin populations in four cave systems and collected DNA samples to determine their taxonomic status. Through work with the Cave Research Foundation, we developed ArcGIS layers of cave maps, cave entrances,

springs and satellite imagery. We made presentations to landowners, spelunking and cave-research groups, and other agencies.

Alligator gar restoration

Alligator gar, one of the largest aquatic animals in North America, have experienced population declines throughout much of their native range. In partnership with the U.S. Fish and Wildlife Service, MDC biologists have reintroduced alligator gar to portions of its former habitat in Missouri. In May 2007 we released 68 15-inch alligator gar in Monopoly Marsh of Mingo National Wildlife Refuge and Marquette North Lake, and followed up in November with 45 fish in Marquette North Lake. Additional stockings could not be completed in 2008 due to the unavailability of fish from the Tishomingo National Fish Hatchery in Oklahoma.

Researchers from MDC and Southeast Missouri State University tracked the gar to determine movement and habitat preferences. After release in both locations, the alligator gar moved little, with a few long-distance movements by a few fish. We believe most movements are keyed to the movements of the gar's prey, which to date has been gizzard shad, green sunfish and orange-spotted sunfish. MDC biologists will be studying the fish community of both lakes to determine whether there are any changes as a result of restoring this native species. Alligator gar occasionally are seen in other Missouri waters, and large fish are sometimes caught.

Special efforts made to conserve cavefish

MDC made special efforts in FY08 through a targeted outreach program to reach landowners living in recharge areas of Ozark cavefish caves. Meetings, targeted mailings, newspaper and TV coverage, and personal visits increased the awareness of issues affecting cavefish. Several eight cost-share projects were implemented to enhance and protect karst habitats, which support populations of this species.

New methods aid hellbender monitoring and propagation

The Eastern hellbender is listed as state endangered in Missouri, and the Ozark hellbender (a subspecies found only in Missouri and Arkansas) is a federal candidate for listing under the Endangered Species Act. For several years, MDC has been working to improve habitat and population levels of these unique animals. In order to better

assess population levels of the hellbender, staff investigated a sampling method that had never been tried before in Missouri—live trapping. After some experimentation with trap design, MDC staff set out to determine if traps could be used to sample hellbenders—and they were successful! In streams with water clarity and depth that prevent visual sampling, this could be a very useful technique to monitor population levels, capture adults for hellbender propagation, and in hellbender rescue operations.

In addition, staff at Shepherd of the Hills Hatchery near Branson successfully incubated, hatched and reared both Eastern and Ozark Hellbenders in a hatchery setting. A total of 449 Eastern and 60 Ozark hellbender larvae hatched at the hatchery, and 396 Eastern and 53 Ozark hellbenders were transferred to the St. Louis Zoo. While the technique relies on gathering fertilized egg clutches from the wild, MDC staff has been able to successfully hatch and raise the young hellbenders to a large size in captivity, and, we hope, minimize the elements of natural mortality that they face in the wild. Further work and refinement of the technique is pending; however, this is a significant accomplishment that will pave the way for more extensive restoration programs for the species in the future.

Freshwater mussel production and management continued

A greater proportion of freshwater mussels are on the U.S. threatened and endangered species list than any other group of animals in North America. For the past eight years, MDC staff has worked in partnership with Missouri State University in the production of freshwater mussels. MDC and Missouri State University staffs refined propagation techniques for black sandshell, Neosho mucket, pink mucket and snuffbox mussels. In FY08, 1.4 million of these mussels were produced in MDC facilities. Using techniques developed at Missouri State University to raise the juvenile mussels to a larger size, MDC staff has the capability to produce several mussel species for reintroduction purposes. With the completion of a mussel management plan, and future population assessment efforts, the stage is set for reestablishing some of the freshwater mussel populations that have been declining.

Zebra mussel prevention efforts expand

The invasive zebra mussel's range increased in FY08 to new locations on Lake of the Ozarks and new records for Lake Taneycomo, the Osage River and Bull Shoals Lake. The spread of these animals is aided by boats used in multiple locations and not sufficiently cleaned and treated in between uses. A substantial amount of publicity on zebra mussels and the need for cleaning boats and outboard motors after every use was distributed this year, including several billboards at strategic locations near large, heavily used lakes. By adopting new protocols for use of boats and fish stocking, MDC has taken measures to ensure that we do not contribute to the zebra mussel's expansion. In addition, three hatcheries using lakes as water supplies have new regulations that prohibit the use of private boats and outboard motors and any live bait that is normally stored in water (minnows, leeches etc.). These additional preventative measures were needed to protect the water supplies for these hatcheries and the many lakes that receive their fish. We remain vigilant for other steps necessary to make sure that MDC programs and personnel do not become vectors for this invasive species.

Aquatic conservation-opportunity area management continued

MDC staff has been actively involved in managing many of the 158 aquatic conservation-opportunity areas of Missouri. The stream community and aquatic-habitat work completed in the Union Ridge Aquatic Conservation Opportunity Area in Adair and Sullivan counties is a good example of our efforts. Spring Creek and its watershed lies within the Grand/Chariton Ecological Drainage Unit in north central Missouri and south central Iowa, and is targeted for stream-habitat restoration. The brassy minnow, a species of special conservation concern, has been found in the watershed. Staff used standard sampling protocols to collect baseline data on fish, crayfish, mussel communities, stream geomorphology and aquatic habitat at 12 random sites on private land.

These surveys provide a good "snapshot" of stream biota, habitat diversity and channel stability within a watershed with good potential to sustain a diverse aquatic community within a prairie ecosystem. We will share results with cooperating landowners and use them to encourage conserva-

tion practices on private lands. The practices, in turn, will reduce soil erosion and protect water quality.

In FY08 we also trained employees in using historic data sets and used special regional sampling crews from data collection. All these actions enhance MDC's capacity to manage aquatic conservation opportunity areas elsewhere in Missouri.

Best Management Practices to guide industry in woody biomass harvesting

In FY08 new BMPs were written to give guidance to the forest products industry when harvesting woody biomass. A diverse group of stakeholders met twice to discuss issues that needed to be addressed. A technical group was chosen from this group to write the BMPs.

These BMPs address forest-management issues, wildlife, soils, aesthetics, and roads and skid trails. Soil productivity, wildlife habitat, forest health and soil stability will be protected when the practices are implemented by forest-products harvesting companies.

Genetics program enhances conservation of rare and common species alike

The Statewide Conservation Genetics Program uses the principle that there is genetic diversity throughout Missouri's animal and plant species that determines their productivity and survival. By identifying this diversity, often through analysis of DNA, rare animal and plant species can be protected, sport fishing can be improved, hatchery strains can be selected and species can be restored. DNA "typing" often can be used to identify species, sources and sometimes "parents" of animals and plants in the wild. Species studies involve walleye, several darters and crayfish, black bass, shortleaf pine and hellbenders.

Long-term resource monitoring program continues on Mississippi River

This program is a cooperative effort among the U.S. Army Corps of Engineers, U.S. Geological Survey, and states in the upper Mississippi River basin, including Missouri. Long-term trends in fisheries, water quality, invertebrates, forest resources, land use and land cover for the entire upper river system are monitored through a network of state-operated field stations.

Missouri's contribution is the Big Rivers and Wetlands Systems Field Station, which began operation in 1991 and monitors conditions in the 25 river miles both north and south of Cape Girardeau. Water-quality data are collected year 'round and fisheries data are collected from June through October each year. This information is used by several agencies in and outside Missouri. The program also is involved in answering specific research or management questions that come to light from analysis of the monitoring data, and these questions involve issues ranging from small invertebrates to birds.

Largemouth bass recruitment continues in White River lakes

Largemouth bass recruitment is a complex process affected by multiple lake-related factors. Recruitment in fisheries is normally defined as both successful reproduction and survival to a certain size or age of fish—normally one year of age.

By sinking brush in shallow water of Bull Shoals Lake, MDC began a study that attempts to mimic the beneficial environment created for small fish during high-water conditions. After brush placement, we monitored largemouth bass nests in the spring and juvenile largemouth bass in the summer and fall to determine if brush is beneficial to young largemouth bass. We also monitored large predatory fish within these brush areas to determine their effect on recruitment of young largemouth bass. Information from this study may increase survival of young black bass in White River reservoirs during periods of normal or below-normal water levels. This will result, ultimately, in improved fishing.

Missouri's crayfish bait industry helps to protect aquatic resources

The introduction of alien invasive crayfish is a serious problem in freshwater ecosystems in North America and Europe. Consequences include loss of native crayfish, amphibian and reptile populations, habitat changes, disruption of food chains and collapse of prized fisheries. The live-bait trade is a primary source for the introduction of these alien crayfishes.

In response, some states have banned the use of live crayfish as bait. Missouri's policy allows legal sales of four native crayfish species and prohibits crayfish taken from the wild to be sold as bait. In 2002, all known bait vendors in Missouri (370 shops) were telephoned to determine if they sold

crayfish. In 2003 and 2004, conservation agents visited 105 bait shops throughout Missouri and collected crayfish for identification. The majority of bait shops surveyed were conducting legal sales, but three illegal species were found, including the alien rusty crayfish. In addition, two legal species—the White River crayfish and the red swamp crayfish—were prevalent in samples and were sold at multiple locations throughout the state where these species were never found historically.

Working side by side with bait-shop owners, MDC inspected sales records which revealed that crayfish were supplied by commercial sources in Missouri and six other states, and that they also were obtained illegally from the wild. In a follow-up telephone survey of Missouri bait shops that sell crayfish, 98 percent of shop owners admitted that they do not know what species they are selling. The final report from this study is being prepared. Subsequent management efforts have focused on removing illegal species from bait shops and educating bait vendors on bait regulations and invasive species.

We recently have published and distributed a crayfish identification guide for bait-shop owners at their request. Additional changes to policies regarding several invasive species are under consideration. In addition, the preliminary work with bait-shop owners has provided us an opportunity to develop a working relationship with an important stakeholder in the fishing industry.

New wetlands at Columbia Bottom Conservation Area

Wetland pool usage saw increased use by both waterfowl and hunters in FY08. Development of nearly 800 acres of managed wetlands at Columbia Bottom Conservation Area has been a cooperative project between MDC and the Army Corps of Engineers. The project's final phase included installation of a pump station to provide a permanent source of water for wetland pools. The seven managed wetland pools all have independent drain-and-fill capability through an elaborate system of pipelines, valves and water-control structures. Project cost was approximately \$9 million. Wetland work at Columbia Bottom Conservation Area is part of the Corps of Engineers' Missouri River Fish and Wildlife Mitigation Program.

Coordinated and implemented interstate and intrastate river-basin management

Staff represented the state's fish, forest and wildlife interests in various interstate working groups to implement ecosystem-based management necessary for the conservation and enhancement of natural and recreational resources of the Missouri, Mississippi and White rivers. They helped direct the implementation of \$54 million available through the Missouri River Fish and Wildlife Mitigation Project for habitat restoration, \$16.8 million available through the Mississippi River Environmental Management Program (EMP) for biological monitoring and habitat restoration, and \$10 million available for planning efforts within the proposed Mississippi River Navigation and Ecosystem Restoration Program. One EMP action included continued development on the Ted Shanks Conservation Area wetland-enhancement project.

White River basin coordination focused on a forebay diffuser study at Table Rock Dam. The study is under the umbrella of the White River Comprehensive Study, under which projects can be conducted and funded to the benefit of basin stakeholders. Results of the study will guide implementation of measures to improve dissolved oxygen levels in the tailrace at the upper end of Lake Taneycomo.

Worked with industry, state and federal regulators to protect state's resources

Staff responded to outside requests for information regarding Missouri's species and communities of conservation concern—helping more than 1,000 projects needing federal permits or using federal funds to comply with provisions of the Endangered Species Act. Staff also coordinated MDC's participation and response to federal and state environmental review processes from those seeking to comply with the National Environmental Policy Act, Clean Water Act and other federal and state laws, rules and regulations. Additionally, in order to comply with state and federal environmental laws and the National Historic Preservation Act, staff reviewed and adopted plans for all MDC constructions and resource-restoration activities. These actions ensured that requirements were met for compliance, and necessary permits and clearances obtained.

Agency staff participated in a Federal Energy Regulatory Commission Environmental Impact Statement (EIS) and Record of Decision (ROD) for the Rockies Express East Phase Project (natural

gas pipeline). This project starts at a point in Audrain County and leaves Missouri at a point in Pike County. This project is in construction, and staff continue to be involved with this portion of the project. We anticipate an impact to public lands near the Ted Shanks Conservation Area.

MDC has been involved in the U.S. Department of State-led Environmental Impact Statement for the Canadian-based Keystone Project (oil pipeline). A final EIS or ROD was released on the project this year, which is collocated along the Rockies Express Pipeline from Buchanan County, Missouri, to a point in Audrain County. The project will travel from there to a crossing across the Mississippi River in St. Charles County.

The pipeline companies have agreed to avoid or minimize, through a variety of construction techniques and practices, their impact through the identified Conservation Opportunity Areas projected along the routes.

Agency staff participated in the environmental review and coordination of several proposals to develop hydropower within the Mississippi River. Applicants submitted to the Federal Energy Regulatory Commission proposals to develop traditional hydropower at Locks and Dams 20, 21, 22, 24 and 25, and to develop hydrokinetic projects at 14 locations in the portion of the river below St. Louis. Staff worked with the Missouri Department of Natural Resources, state agencies from Illinois, Tennessee and Kentucky, and several federal agencies to consider impacts to fish, forest and wildlife resources, including public lands. Coordination with the multiple agencies and applicants to ensure adverse natural resource impacts are avoided, minimized and mitigated, as appropriate, will require multiple years, depending on the complexity of the proposed project.

Conserving all wildlife in Missouri with the Comprehensive Wildlife Strategy

The Comprehensive Wildlife Strategy (CWS) is guiding conservation action for all wildlife, with emphasis on proactive conservation that will prevent the need for additional listing of declining species of fish, wildlife and plants. The Missouri strategy has become an effective tool for conservation planning and implementation, integrating priority projects and initiatives with partners and other agencies.

During the last year, three more stakeholder teams have developed action plans to the Directory of Conservation Opportunity: Upper Blue River COA, Missouri River Hills COA and South-

east Sand Ridge Grasslands COA. The directory describes 36 priority geographies for all wildlife conservation. These are important geographies to meet our commitment to "Conserving Plants, Animals and Their Habitat" for the Next Generation of Conservation.

The Conservation Federation of Missouri continues to grow in support for CWS implementation through the addition of a Teaming-With-Wildlife coordinator.

Staff active in invasive species control

The zebra mussel prevention policy was completely revised, providing viable options for ensuring that MDC staff are not providing pathways for transferring non-target aquatic species. In addition, a zebra mussel distribution map was created and posted on MDC's public website, and 37,000 zebra mussel alert cards were revised and printed. Ten thousand "Help Stop Aquatic Hitchhiker" brochures were updated and printed.

Two consecutive days of training in Hazard Analysis and Critical Control Point (HACCP) planning were provided for 65 MDC staff with representatives from nearly every MDC resource division, Missouri Department of Transportation and the USFWS. A HACCP plan was developed for hellbenders captured from the wild and transported to Shepherd of the Hills Hatchery for propagation.

The Invasive Species Program facilitated getting the emerald ash borer (EAB) action plan approved by the directors of the Missouri departments of Conservation, Agriculture and Natural Resources. Within two months after the plan was approved, EABs were detected in Missouri. More than 400 firewood posters and EAB *Missouri Conservationist* article reprints were sent to private and public campground facilities in Missouri.

Four invasive species presentations were provided to Missouri Master Naturalists, U.S. Army Corps of Engineers, lakes of Missouri Volunteer Monitoring Program and Future Farmers of America camp. Funding was secured from the Missouri Conservation Heritage Foundation to install six zebra mussel billboards along highways near Mark Twain or Bull Shoal reservoirs. Materials for five invasive species table-top displays were purchased, and the materials and poster were used at the Ozark Empire Fair in Springfield and at the Missouri State Fair in Sedalia.

Control of the noxious weed, spotted knapweed, was coordinated with the University of Missouri, Missouri Department of Transportation, University of Missouri Extension and the Missouri Depart-

ment of Conservation. The Missouri Department of Transportation made several insect releases along highway rights-of-way.

Land acquired to benefit habitat and species

We acquired approximately 1,435 acres of land in 14 counties, of which nearly 254 acres were acquired by donation. Acquisitions included grassland providing prairie-chicken nesting and brood-habitat-restoration opportunities; land allowing for increased waterfowl hunting opportunities; property supporting a wide diversity of aquatic and terrestrial species including pallid sturgeon and interior least terns—both federally listed species; and land containing approximately one-half mile stream frontage on both sides of the Little Niangua River that supports the Niangua darter and a cave that supports the gray bat. Both the Niangua darter and gray bat are federal- and state-endangered species.



Protecting Clean and Healthy Waters

Stream Team growth continues

The Missouri Stream Team program continued to grow, and its members completed many successful projects. There are more than 3,700 teams whose volunteers spent 197,460 hours working on their adopted streams. Since the program began in 1989, volunteers have spent more than a million hours protecting and improving Missouri streams.

Assisted with Clean Vessel projects

MDC staff oversaw the completion of two Clean Vessel Act and two Boating Infrastructure Grant Program projects (one Lake of the Ozarks marina and one Stockton Lake marina). The purpose of the federal Clean Vessel Act of 1992 is to help reduce pollution from vessel sewage discharges by assisting with the installation of boat pumpout systems at marinas. The Boating Infrastructure Grant Program assists with the construction of facilities for large, transient boats. Both programs, which are administered by the MDC in Missouri, provide federal reimbursement of up to 75 percent of the costs of approved projects, with the remaining funds provided by the marina owners.

Efforts made streams better understood

In FY08, MDC staff successfully helped a wide range of citizens better understand how rivers and streams function. We provided short courses to groups such as county road and bridge crews, Missouri Canoe Outfitters Association, Outreach and Education Division staff, Master Naturalist students and stream teams. In every case, MDC staff witnessed immediate positive results as attendees used the newly acquired knowledge to better manage our rivers and streams.

Conservation easement negotiated

We negotiated an additional perpetual conservation easement on approximately 42 acres of high-quality riparian forest along Long Branch Creek in Macon County. This easement includes two stream crossings and protects the bottomland forests from grazing or other encroachment upstream of Long Branch Reservoir. The reservoir is a popular recreation destination and is the water supply reservoir for much of Macon County.

Stream Stewardship Trust Fund

The Stream Stewardship Trust Fund is an in-lieu fee program created in 1999 to mitigate the loss of Missouri's stream resources. It is available to restore, enhance and/or protect stream systems and associated riparian habitats. From its inception in 1999 until the end of FY08, more than \$4.0 million had been collected through the program. The program and funds are administered by the Missouri Conservation Heritage Foundation, and MDC staff apply for grants to use toward protecting Missouri stream resources. In FY08, seven projects costing \$467,000 were approved to protect 65.8 acres of stream channel and 133.5 acres of riparian corridor. To date, \$2.2 million in funds have been allocated to 46 projects that offer protection to 741 acres of stream channel and 1,559 acres of riparian corridor.

Best Management Practices employed for forest management

We implemented and maintained soil and water conservation Best Management Practices (BMPs) for all forest management practices on conservation areas. Each MDC sale administrator monitors and documents BMP compliance on all MDC timber sales. In addition, approximately 10 percent of these sales are audited each year. In FY08 we reviewed 131 sites on 6,547 acres for proper BMP

implementation and effectiveness. Spot checks were performed on the remainder of forest management practices at the same time.

Taum Sauk Dam monitoring and restoration continue

By now the December 2005 Taum Sauk Dam break is considered by many as a thing of the past, due to AmerenUE's settlement with the state for more than \$179 million—with \$6 million going to MDC for resource damages. However, much remains to be learned, and restoration efforts are far from complete.

MDC continues to work cooperatively with several agencies to restore forest, fish and wildlife resources affected by the collapse of the upper part of the dam. The collapse and catastrophic flooding that ensued caused substantial habitat damage in the East Fork of the Black River and Lower Taum Sauk Reservoir. We developed recommendations for aquatic restoration efforts for the Missouri Department of Natural Resources, the lead agency for implementing resource damage reconstruction for the catastrophe.

Rehabilitation efforts are focused on a newly constructed stream channel through Johnson's Shut-Ins State Park, flow releases from the lower reservoir and recovery of the East Fork. Habitat, fish, insects and other invertebrates were sampled to evaluate effects on aquatic life and habitat. Early work has indicated that fish are recolonizing the most affected areas in the park; however, some species have declined or are absent since the event. There is concern that significant barriers to fish movement, such as the reservoir and coffer dam, may slow or prevent complete recovery of the East Fork.

Agencies' cooperation increased effectiveness of contaminant monitoring

MDC initiated discussions with the Missouri departments of Natural Resources, and Health and Senior Services to explore ways to more efficiently collect key fish-contaminant information. Through cooperation on fish collection and sample analysis, we have increased the amount of information collected, with no increase in cost to the public. We also have shortened the time it takes to get this information to the public in the form of fish-consumption advisories.

We also have been better able to define the impacts of lead mining and subsequent remediation activities on Missouri's forest, fish and wildlife

resources. This will ensure that, as the contaminated areas are cleaned up, public funds will be expended on the activities that will provide the most natural resource benefits.

Finally, as a result of a new strategic direction, we will perform a comprehensive summary of the fish contaminant data that MDC has collected during the past 25 years. We will use the information—in conjunction with emerging new contaminant issues—to update the program. The first summary was conducted this year on mercury data.

Collaboration seeks to improve aquatic resources at Bagnell Dam

Interagency coordination proceeds for the Osage Project, as MDC continues to work with the other parties to develop plans which will guide the implementation of natural resource-related articles of the project's license. Preliminary work has begun to install a fish barrier net in front of the turbines of Bagnell Dam. There also have been collaborative efforts regarding water-quality enhancement measures to be taken within the operation of Bagnell Dam. Water quality and habitat improvements will be provided for the 82 miles of the Osage River below Bagnell Dam. The Conservation Department and the Missouri Department of Natural Resources also have assisted AmerenUE in resolving issues related to the natural resources-protection conditions filed in their Shoreline Management plan.



Promoting Healthy Trees and Forests

New guidelines help MDC manage forests

MDC is revising and refining the way it manages forests. The Forest Land Action Guidelines identify multiple processes for evaluating and managing the diverse woodland and forest communities in Missouri. They are tools that will help natural resource managers develop insights on how to evaluate, understand and sustainably manage Missouri's forest and woodland communities.

The guidelines incorporate adaptive management concepts and provide direction so that environmental, economic and social benefits are derived from sustainable forest management. Together with area plans, the guidelines provide a foundation for implementing the broad goals out-

lined in *The Next Generation of Conservation*. These guidelines can be accessed from the Forestry Division public Web page.

Farm Bill mandates new focus

The 2008 Farm Bill mandated states to do a State-wide Forest Resource Assessment and Statewide Forest Resource Strategy by June 2010 in order to continue to get federal grant money. This will be a major focus for the next two years.

Wildfire prevention promoted in concert with hazard-mitigation grant

By way of endorsing a third-party U.S. Forest Service Hazard Mitigation grant to the Southwest RC&D, MDC supported a two-year effort beginning in FY08 to promote wildfire prevention in southwestern Missouri. This area was hit severely by the January 2007 ice storm. The continued clean-up from the storm poses the threat of increased escaped debris fires. Heavy, woody debris in the forests of this area makes wildfire suppression much more difficult and hazardous to firefighters.

Learned lessons from the Missouri Ozark Forest Ecosystem Project

The Missouri Ozark Forest Ecosystem Project (MOFEP) is a landscape-scale, long-term experiment designed to study the impact of even-aged, uneven-aged and no-harvest management on flora and fauna in Missouri oak-hickory forests. Project components include determining the effects of forest management on bird, reptile and amphibian communities, small mammals, insects and vegetation.

MOFEP enables resource managers to use the knowledge gained through experimentation to adjust and improve their management systems during the course of the project. Results thus far suggest that harvesting did not adversely affect bird, amphibian, reptile or small mammal species, but it reduced insect herbivore diversity. Harvested sites had significantly higher overall species richness and ground flora cover, including soft mast, than no-harvest sites. Even-aged and uneven-aged management increased soft mast production. Harvesting decreased the amount of carbon stored. Uneven-aged management increased harvest damage. *Armillaria* species (root rot) are major contributors to Ozark forest decline. Economic benefits between even- and uneven-aged management were similar.

Our understanding of the effects of management prescriptions on ecosystem components and the value of the data derived from MOFEP will grow as we continue to monitor studies in the long term.

Effects of even-aged forest management on early successional bird species: The effects of different clear-cut sizes on species richness, abundance and reproductive success of birds were evaluated on the MOFEP study sites. Species richness was higher in larger clear cuts than in smaller openings, and size had a significant effect on relative abundance of four focal species: yellow-breasted chat, indigo bunting, white-eyed vireo and prairie warbler. There was no observed relationship between clear-cut size and reproductive success, but this study confirmed our observation that the rate of brown-headed cowbird parasitism is low on the MOFEP sites. The results of this study suggest that it is beneficial to have a variety of sizes of openings when designing forest management plans.

Missouri Master Logger Certification Program put in motion

MDC helped develop the Missouri Master Logger Certification program. We awarded a \$20,000 grant to the Missouri Forest Products Association to help start this volunteer program, where a logger agrees to uphold the standards set by the program. Verifiers would review some of the logger's past sales to confirm they were in compliance with Missouri Master Logger Certification Program criteria. The verifiers' findings would go to the certifying board, who would decide if the logger should be in the program. This is a performance-based program from which loggers can be removed if they do not uphold the standards.

The certifying board will be composed of a state legislator, a wildlife professional, a master logger from another state, a soil scientist and a representative from an environmental organization and MDC.

This program gives outstanding loggers an opportunity to be recognized and their skills showcased. It is hoped that landowners would be encouraged to engage these loggers to harvest their timber sales. The state's fish, forest, wildlife, soils, water and air will be better protected when harvesting is done by certified loggers.

Program monitors forest health throughout Missouri

The Forest Health Program is a cooperative effort between MDC and other state and federal agencies to conserve Missouri's forest resources by monitoring and evaluating forest health and providing forest health management information to Missouri residents. Monitoring activities document and evaluate ongoing threats to forest health. Among the threats are oak decline and oak wilt, and sporadic events such as insect outbreaks, storms and drought. MDC conducts annual statewide surveys in partnership with other agencies to detect introductions of the gypsy moth and emerald ash borer—two invasive species threatening to cause severe forest losses.

Diagnostic laboratory services are provided on all forms of forest insect and disease agents. Forest and pest management recommendations are developed based on monitoring and diagnostic activities and provided to private landowners, MDC staff, forest managers, arborists and the green industry. Forest health information is given to stakeholders through workshops, diagnostic reports, magazine and Web site articles, media releases and the Forest Health Update newsletter.

The Forest Health Program staff cooperates with university and USDA Forest Service researchers in studies that examine forest-harvesting impacts on forest insect populations. They also share information about the identification of insects that transmit the oak-wilt fungus in Missouri.

Timber harvesters program continues

We work closely with Missouri's forest products industry to monitor the use of our state's forest resource. The Missouri Forest Products Association and Forestry Division jointly sponsor logger training courses aimed at educating loggers about forest management principles, introducing new techniques and concepts, and enhancing the safety of timber-harvesting operations. Almost 300 loggers have been through the program in Missouri.

Assisted with Western fires

MDC employees again assisted on the national level with the catastrophic fires of 2008. Through a mutual-aid agreement, Missouri supplies trained firefighters and the U.S. Forest Service reimburses the state for wages and overhead costs. These amounted to \$962,675 in FY08.



Preserving Missouri's Outdoor Recreation Heritage

Study, regulation changes benefit anglers and hunters

Catfish harvest management: The Catfish Harvest Evaluation Project is a five-year statewide study that began in 2005 and is designed to provide information about the population dynamics, harvest, movement and nest success of flathead and blue catfish in selected Missouri rivers. MDC biologists are sampling catfish in segments of eight rivers throughout Missouri, sampling approximately 349 river miles by tagging fish with radio tags and \$25 reward tags that are returned by anglers. We are also studying flathead catfish nest success, spawning behavior and fecundity at one of MDC's hatcheries.

Deer management meetings conducted

MDC sought public input on potential changes in the antler restriction and firearms season timing. This was done several ways. We conducted random surveys of hunters and production landowners, listened to citizens at 16 public meetings held throughout the state, and read comments from those meetings and from the public outside the meetings, and from those who sent messages to us via the Web.

Response to the potential season timing changes varied with source. Verbal comments at public meetings were negative toward all season timing changes. Verbal comments from the public meetings and all written comments tended to be negative toward all the season timing changes except for moving the muzzleloader portion to late December. Web-based comments and responses to random surveys of landowners and firearms deer hunters were supportive of all changes. There were some regional differences in support of the changes, but no clear patterns.

The reasons for the differences in opinion generated by the different sources would be an interesting study in sociology/psychology. The best source of information to gauge overall public sentiment is from random surveys, and they indicated public support for the changes. Of the three changes, moving the antlerless portion to October was least favored (although interestingly, landowners were in favor). This was also the least

avored change, as indicated by other sources of public opinion. At public meetings held in counties that have an antlerless portion, the October antlerless was usually the most “discussed” issue, with considerable opposition.

Recommendations for the 2008 and 2009 deer seasons were based on the biological/management rationale and the results of the public-input process.

Brought code violators to justice

Operation Game Thief and Forest Arson:

Operation Game Thief/Forest Arson continue to be successful programs which help catch wildlife poachers and forest arsonists. The programs allow anonymous callers to report violations, and callers are eligible for rewards if arrests are made from their calls. Last year Operation Game Thief (OGT) produced 348 convictions from 1,031 telephone calls. This 34 percent arrest rate based on calls illustrates the high-quality of information from OGT callers and the investigative skills of conservation agents. In FY08, \$12,350 in reward money was paid to callers.

Revocations: Missouri is a participating state in the Interstate Wildlife Violator Compact (IWVC). The compact—a legal organization of 30 member-state wildlife agencies—agrees to reciprocally honor revocations/suspensions of hunting, fishing and trapping privileges for wildlife-related violations. During the last fiscal year 1,887 people from other states had their privileges revoked in Missouri through provisions of the compact. An additional 153 were revoked for cause by the Conservation Commission in Missouri and submitted to the IWVC. Participation in the compact also benefits Missourians who travel to other compact member states for hunting and fishing activities. If found in violation, they may be given the opportunity to resolve the citation by mail rather than being required to post a bond before leaving the member state. They are subject to revocation by all compact states if the citation is ignored.

Hunting Method Exemption and Group Fishing programs assist disabled

Both the Hunting Method Exemption Program and the Group Fishing Program are designed to assist disabled hunters and provide opportunities for educational or rehabilitation groups to experience fishing. During the last fiscal year, we issued 3,055 hunting method exemptions to help disabled

hunters enjoy Missouri's outdoors. We also issued 260 group-fishing permits to help Missourians who otherwise might not be able to participate and learn about outdoor fishing activities.

Helped thousands learn how to participate in and enjoy fishing

Angler recognition programs: MDC presented a First Fish certificate to 1,614 anglers for catching their first fish. We issued Master Angler awards to 414 anglers who caught large game fish that equaled or exceeded minimum-size requirements. We also issued one new state record to an angler who gilled a 9-pound, 13-ounce black redhorse, which exceeded the previously recorded maximum weight for black redhorse taken by alternative methods in Missouri.

Kids fishing days at the trout parks: For the sixth consecutive year, Kids' Fishing Day (KFD) was held at the trout parks. Based on the number of free daily tags given to youngsters 15 years of age or younger, combined attendance at the May 2008 KFDs held at Bennett Spring, Maramec Spring, Montauk and Roaring River was 4,771. Attendance was down somewhat compared to previous years, likely due to rainy, cool weather. In spite of the weather, the KFD program remains popular.

Urban fishing programs remain priority

MDC strives to provide high-quality fishing opportunities for all Missourians, including those living in urban areas. With higher gas prices, it has become even more important to provide close-to-home fishing opportunities to our urban residents.

During FY08, 58 urban impoundments were managed for urban fishing (two new lakes were added to the program in Kansas City). Approximately 179,000 keeper-sized fish were stocked in these lakes; this included more than 101,000 channel catfish, more than 73,000 rainbow trout and 4,375 brown trout.

Increased trout-fishing opportunities

One of the objectives in *A Plan for Missouri Trout Fishing* is to increase catch-and-release opportunities in the trout parks. With the cooperation of the Missouri Department of Natural Resources, the winter catch-and-release season at Bennett Spring, Montauk and Roaring River state parks continued four days per week during the mid-November to

mid-February season. The 2007–08 winter catch-and-release season proved popular with anglers and will be continued.

In addition, a new winter-trout area was established at Everyday Pond in St. Joseph, and newly renovated Spur Pond in Kirksville opened for winter trout fishing for the first time. This brings winter trout-fishing opportunities to a total of 28 small impoundments in cities and towns across Missouri.

We also installed fish-habitat structures on the newly acquired Bohigian Conservation Area to improve the trout population of the Mill Creek Blue Ribbon Trout Area. Forty-seven members of six trout organizations from three states volunteered to install the structures.

Trout hatchery improvements made

The Conservation Commission, at its August 2004 meeting, approved an extensive program of trout hatchery improvements to support goals and objectives in *A Plan for Missouri Trout Fishing*.

During FY08, we completed priority projects at Roaring River, Shepherd of the Hills and Montauk hatcheries. At all three hatcheries, we began using the dissolved oxygen-management and degassing systems that will significantly improve water-quality management.

We completed a number of construction projects at Shepherd of the Hills Hatchery, including a brown trout-rearing complex, fish ladder, additional rearing space and netting to reduce bird predation. At Roaring River, water supply improvements, spring pool and dam renovation, and a dissolved oxygen-management system were installed. Montauk's major improvement was the dissolved oxygen-management system.

Brown trout fish ladder installed

MDC hatchery workers were successful in attracting adult brown trout into Shepherd of the Hills Hatchery by installing a fish ladder. They believed a series of small waterfalls might be enough to attract adult brown trout from Lake Taneycomo into their raceway. A basic fish ladder design was established, constructed and refined on site. Then, in October, the first fish began leaping up the cascades and entering the raceways in the hatchery.

The successful adaptation of nature's waterfalls led more than 500 ripe female and male brown trout brood stock to swim directly into Shepherd of the Hills Hatchery. This will result in more

than 600,000 eggs for incubation and raising to an 8- to 10-inch stocking size for Lake Taneycomo and selected trout streams.

At the same time, the traditional problems associated with the stress of capture and transport of brood stock were replaced with a natural migration of adult fish back to the hatchery of their birth.

Hatcheries have banner year for warm-water fish production

MDC's warm-water hatchery system produced enough fish to meet stocking needs in Missouri and provide fish for trading to other states in 2007. We stocked 11.5 million fish in public and private waters by the end of 2007.

Among some of the highlights of this past production year, Lost Valley Hatchery satisfied all requests for stocking 12- to 14-inch musky in Missouri waters. Blind Pony Hatchery produced almost 66,000 8- to 12-inch paddlefish, and, for the first time since 2004, spawned pallid sturgeon.

In the spring of 2008, Chesapeake Hatchery produced approximately 1 million bluegill fry, spawned all the channel catfish sent to other hatcheries for grow out, and sent channel catfish to Iowa in exchange for the musky fry they provided us.

Hunnewell had a banner year for producing walleye, and the catfish harvest at the Paho Fish Rearing station continues to grow and distribute stocking-sized channel catfish for public waters.

We initiated several hatchery improvement projects, including several new kettles and aerators at Blind Pony Hatchery, and new underliner drains in the production ponds at Lost Valley Hatchery.

Northwestern walleye continues popularity

Several years ago, a few lakes in northwest Missouri were stocked with walleye. Traditionally, MDC stocked these fish in larger lakes such as Stockton Lake or Lake of the Ozarks. However, staff felt the stockings of smaller lakes would be successful and well received by anglers, and picked Mozingo Lake and Bilby Ranch Lake to better distribute walleye-fishing opportunities. We stocked fish in 2002 and conducted annual samplings to follow this program's success.

Several years later, we heard angler reports of walleye trying to spawn in the rocks along the dam. Sampling showed that, indeed, the walleye stockings were successful at both lakes. By 2006, a dozen or more boats targeting walleye could be seen on any given weekend, trolling the points

and drop offs of both lakes. Since then, the popularity of this fishery has grown; we hear more and more reports from anglers successful in catching and keeping walleye. Given the success of the initial stocking, both lakes are regularly stocked to supplement these new walleye populations.

Beginning in 2007, MDC initiated a three-year reward tagging program at both lakes to determine how many walleye anglers are removing and the impact on the overall walleye populations. The information from this study will assist MDC managers in keeping walleye fish populations healthy and walleye fishing great.

Upper Mississippi River walleye and sauger studied

Walleye and sauger are important recreational fish species in the Upper Mississippi River. Angling for these species primarily occurs during the fall and winter months. We initiated an assessment in 2005 to gather the necessary population information needed to conserve and improve these fisheries. During 2005, 2006 and 2007 we captured walleye and sauger and tagged a portion with reward tags. Results indicate that sauger are more abundant than anticipated and they grow well. However, they experience high natural mortality, in addition to high harvest. The information derived from this study will be used to determine if there are steps that can be taken that will lead to improved fishing for these species.

New youth fishing program begun

GO FISH! Program staff and volunteers taught fishing and environmental stewardship to St. Louis children (ages 8–15) by conducting 249 programs this past year. The program is designed around seven different “hooks” or lessons that provide aquatic education and fishing instruction, as well as highly successful fishing opportunities. Free fishing equipment was given to more than 2,200 angler contacts after successful completion of programs.

In addition, the GO FISH! Program served physically and mentally challenged anglers from the St. Louis Therapeutic Fishing Program. The program receives help from 65 volunteer angler instructors and coaches, and the support of 29 children’s or adult therapeutic groups. In 2008, a fourth Conservation Fishing Center was added (Busch CA) and a new winter trout “hook.” In addition to

outstanding volunteer support, the GO FISH! Program has received donated equipment and money from 14 corporate and not-for-profit sponsors.

Fishing clinics get diverse

MDC employees and volunteers provide many programs with instruction in hunting, fishing, trapping and shooting sports. Hundreds of MDC fishing clinics provide opportunities for attendees to learn the basics, and advanced training is available to those who want to learn more. Several, such as the clinic provided to the El Puente Mission in Cole County, provide instruction and fishing opportunities to groups that are under represented in today’s angler community.

In February, an ice-fishing clinic on Mozingo Lake in Nodaway County showed many that fishing is not just a warm-weather activity; 60 people (70 percent of which were children) accompanied MDC staff to the lake to learn how to fish through the ice, and do so safely. MDC staff also gave lessons to State Fair attendees on filleting and cooking fish. Among other clinics we held this year were those specifically for special needs or disabled citizens, such as “A Day at the Ol’ Fishing Hole” in Rolla. This event catered to disabled anglers of any age and was sponsored by Choices for People, Missouri Chapter of the American Fisheries Society, MDC and the Wild Turkey Federation’s Wheelin’ Sportsmen. Anglers came from the Missouri Veterans Home, Phelps County Recreation for the Handicapped, People for Choices and the Rolla High School Special Education class.

Table Rock/Taneycomo National Fish Habitat Initiative continues

MDC continues to implement habitat-enhancement projects in Table Rock Lake, Lake Taneycomo and their watersheds. We do this by working with Bass Pro Shops, the Arkansas Game and Fish Commission and the National Fish and Wildlife Foundation through the National Fish Habitat Initiative (NFHI) and the More Fish Campaign.

Results of a feasibility study by the Tennessee Valley Authority to more fully assess a forebay liquid-oxygen diffuser system for Table Rock Dam are pending. System modifications will be discussed with the U.S. Army Corps of Engineers and Southwestern Power Administration during FY09. Cost-share funding has been directed to the James River Basin Partnership and Table Rock Lake Water Quality Inc. to assist with septic tank

pumpout programs, which will enhance and protect water quality in Table Rock Lake's watershed. We have conducted many on-site landowner visits and provided technical support in areas needing streambank and corridor improvements.

Plans call for using cost-share funds on several related projects. We also plan to perform a survey and assessment of stream corridor conditions in portions of the Table Rock watershed. The placement of fish habitat (brush structures and rock structures) in Table Rock Lake began in fall 2007; so far, MDC has placed 250 brushpile structures and four stumpfields in the lake. Additional work is being considered for the upper reaches of Lake Taneycomo.

During the next four years as much as \$4.5 million in NFHI funds will be expended on these efforts. MDC made a five-year commitment to the NFHI project, and will be spending \$100,000 per year for projects. At the same time, efforts continue to enhance the tailwater trout fishery in Lake Taneycomo with improved flows.

More Community Assistance Program agreements executed

Through the Community Assistance Program (CAP) and the closely related Corporate and Agency Partnership Program (CAPP), MDC enters into agreements (usually 25-year) with cities, counties, state and federal agencies, businesses, foundations, schools and colleges. Under these agreements, MDC provides fisheries management at existing lakes and ponds, and cooperatively develops and maintains facilities for anglers and boaters at lake and stream areas. MDC has agreements with 118 partners for the cooperative management of 158 public lakes (9,634 acres of water), 42 stream-access areas, four lake-access areas and six aquatic resource education ponds.

MDC and its partners constructed fishing and motorboat access facilities at McGennis Youth Center Lake (Vernon County), Dabbs Greer Town Hole Park and Access (Anderson), Akerson Access (Palmyra), Chaonia Recreation Area (U.S. Army Corps of Engineers, Wappapello Lake), Greenville Recreation Area (U.S. Army Corps of Engineers, Wappapello Lake), Gasper Landing (Buchanan County) and Maxwell Taylor Park Lake (Keytesville). MDC executed new CAP and CAPP agreements with four partners (one including 10 lakes in the Kansas City area) and renewed or amended existing agreements with seven partners (usually to provide new programs or facility development).

Coordinated Missouri National Archery in the Schools Program (MoNASP)

In 2007 MDC—in collaboration with the Conservation Federation of Missouri—became the Missouri coordinating agency for the National Archery in the Schools Program. By the end of 2008, more than 40 Missouri schools will have adopted this international-style target-archery program in fourth through 12th grade physical education classes. Many of these schools received reimbursement grants up to \$500 toward NASP-approved archery equipment, and more than 5,500 students experienced the program.

Archery is a non-discriminating sport, and one at which nearly everyone can be successful regardless of age, size or physical ability. Reports from MoNASP schools in 2008 show that class grade averages and attendance both improved by 15 percent, while the number of students in detention and in-school suspension decreased during the time NASP units were taught.

Ground breaks for new Lake City range

Construction began on the new Lake City Range and Outdoor Education Center, a state-of-the-art shooting range facility that will enhance opportunities for the Kansas City-area public. This location continues a partnership begun in 1981 when the first Lake City range was opened to the south in Landahl Park. This is one of five staffed shooting ranges that MDC manages throughout the state to provide a safe and educational place for people to hone their hunting, shooting and related outdoor skills.

The new facility will offer a fully baffled, 100-yard, 20-point rifle range; a fully baffled 25-yard, 10-point handgun range; two trap and skeet ranges; one trap range; a static archery range and an education center with a classroom. Completion is expected by January 2010.

Encouraged and mentored new hunters and anglers through many programs

Employees and volunteers provided more than 1,500 programs with instruction in hunting, fishing, trapping and shooting sports. More than 45,000 people took part in these programs, which were aimed at increasing participation in and knowledge of traditional outdoor recreation. We offered about 1,000 Hunter Education classes, certified 25,288 students and piloted an on-line Hunter Education training module. The module,

coupled with a five-hour field day, provides an alternative to the traditional 10 hours of lecture. It offers flexibility to busy people who want to meet the Hunter Education requirements. Development and expansion of this pilot Hunter Education delivery model will continue next year.

Mourning dove-banding program has national significance

The Mourning Dove National Harvest Management Plan provides a vision for improving the reliability of information used in establishing hunting season frameworks in each of the three management units throughout the United States. Annual data from banding doves throughout the country (and specifically in Missouri) provides one piece of information needed to develop a set of population models for guiding harvest management decisions, developing a set of alternative harvest regulations and determining management objectives for mourning doves.

Specifically, information from a national banding program informs managers about changes in population abundance, survival, harvest rates and population growth rates. In combination with other information, banding data also can be used to help estimate annual recruitment of young birds.

Missourians surveyed about deer

Deer-population management decisions are based on biological and social information. As deer populations have increased, information about how the public views deer has become more important and is used to help determine deer-population goals.

In this respect, the two most important surveys that we conduct are the hunter survey and landowner-attitude survey. We choose randomly selected firearms deer hunters and production landowners. We ask them questions about their perceptions of deer numbers, deer management and other deer-related issues.

The results provide valuable information about public attitudes that help us make deer-management decisions. Consequently, we endeavor to balance the resource with the majority of opinions from these two important constituent groups.

Studied variable responses of channel catfish populations to stocking rate

Put-grow-take fisheries for channel catfish are popular in many small impoundments, but are costly because stockings of large fingerlings are usually necessary to maintain these fisheries. Stocking the appropriate number of fish is important to make efficient use of these hatchery products and to create desirable fisheries.

We evaluated the effect of stocking rate on channel catfish populations by using 60 small impoundments that had been assigned to one of three annual stocking rates (five, 15 or 30 fingerlings/acre). We began these experimental stockings in 1998 and sampled channel catfish populations. As channel catfish stocking rate increased, relative abundance increased, while annual growth decreased and sizes of fish were smaller. This suggested that density-dependent factors may be affecting growth. However, relative abundance, size and growth were quite variable among lakes. Further analysis revealed that abundance of channel catfish and lake productivity were important variables in explaining differences in the sizes and growth of catfish among different lakes. Sizes of fish and growth decreased with increasing abundance, but increased with higher lake productivity.

Because of the highly variable response, appropriate stocking rates need to be determined for each lake. Stocking rates should be reduced for those populations that are growing slowly, but could be increased for fast-growing populations. This information will help reduce hatchery costs for stocking by basing the numbers of catfish on the productivity of each lake.



Teaching Missourians About Fish, Forest and Wildlife Resources

Internships encouraged diversity, aided students and MDC

Our stewardship of Missouri's fish, forests and wildlife carries the responsibility of sustaining these natural resources not only for current generations, but for future ones, as well. It also carries the need to recognize that future generations likely will represent a vastly different population which reflects many cultures and backgrounds. MDC has a long-standing commitment to understanding the needs of Missouri citizens and

accepts the challenge of staying in tune with our diverse stakeholders. One way to remain focused is through various diversity outreach programs.

MDC began its fifth year of an internship program which creates experiences for students in the area of conservation, while addressing recruitment needs of MDC. Objectives are threefold: expose students to a variety of professional tasks and MDC's culture; mentor promising students in disciplines in which job candidates are scarce; and attract students with diverse cultural backgrounds to contribute to MDC's workforce and mission accomplishment. Internships are provided at both the undergraduate and graduate levels, and length of internships typically run concurrently with college semesters or summer breaks. Acceptance for an internship requires a minimum of a 2.8 GPA for undergraduates and a 3.0 for graduates and the successful completion of MDC's interview process.

In FY08, 19 male and female students worked in a variety of internship positions, which were diverse in both location and job responsibilities. The students represented 10 colleges and universities and had a combined 3.6 GPA.

Missouri forests aided by volunteers

Missouri Forestkeepers Network: MDC collaborated with Forest ReLeaf of Missouri to support statewide recruitment and coordination of volunteers participating in the Missouri Forestkeepers Network. The Forestkeepers program is a volunteer, self-driven network of those interested in forest and forest monitoring. Volunteers worked more than 20,560 hours on a variety of activities.

Wildland fire-suppression training and the Midwest Wildfire Training Academy: MDC supports volunteer fire departments in many ways. One way in particular is by providing annual wildland fire-suppression training to fire departments throughout the state. We conducted 40 sessions and trained more than 900 local firefighters in fire behavior, suppression techniques and safety at no cost to the fire departments or the volunteers. In addition, we also provided instructors and logistical support for the Midwest Wildfire Training Academy held in Jefferson City each year. This academy draws thousands of participants from throughout the state and the Midwest.

"Discover Nature—Schools" launched

To make our conservation educational offerings more easily recognized by the next generation, programs for families, women and schools will be known under the "Discover Nature" umbrella. So, for example, what was called Learning Outdoor Schools will now be Discover Nature—Schools. The pilot of the new middle-school unit for that program was completed in 2007, and launched statewide this past year. Seventy-one schools with 3,041 students received grants to participate. New instructional units aimed at elementary and high schools will be piloted in 2009 and 2010. Conservation field trip grants helped 22,204 students at 194 schools get outdoors. In addition, 27 new schools received Outdoor Classroom grants. Conservation grants to schools exceeded \$202,000, with the aim of helping Missouri's children connect to nature in a hands-on way.

Twin Pines Conservation Education Center opened

Twin Pines Conservation Education Center began welcoming visitors this year. It's located in southern Shannon County on Highway 60, 1.3 miles east of the junction with Highway 19 in Winona. Because of its location in the midst of Missouri's most productive forests, Twin Pines places a special emphasis on the history of the Ozarks' timber industry. Displays there include vintage logging equipment, a log cabin and an early 20th century schoolhouse.

Opportunities on the area include hiking, bird-watching, nature photography and other nature-related activities. A trail through the area provides access to pine-oak woodland and several other forest types.

Free trees promote forests

In conjunction with the Missouri Department of Transportation, we provided free trees to many non-profit groups. Scout troops, stream teams, school groups, conservation groups and communities used them for tree-planting projects in both urban and rural areas. This program enhances the ability of both agencies to promote an awareness of Missouri's forests and to increase citizens' understanding of the many benefits trees provide.

For Arbor Day 2008, we distributed northern red oak seedlings to more than 109,000 fourth-grade students throughout the state.

Forest Service grant prompts meetings

The Jump Start grant was a partnership with MU Extension and MDC to conduct three public meetings on bioenergy in Cuba, Thayer and Fredericktown. These meetings were held to evaluate the interest and feasibility of building long-term partnerships among key stakeholder groups and to give these regions the ability to make an informed decision about whether a wood-to-energy project is right for their community.

Helped citizens discover, use and enjoy Missouri's outdoors

More than 1 million visitors experienced our conservation nature centers and shooting-range/outdoor-education centers. These facilities offered a wide variety of programs, with more than 300,000 citizens participating in these learning opportunities.

Two new Master Naturalist chapters formed last year, increasing the number of Missourians taking part in this exciting volunteer conservation program. About 240 people took the 40-hour course and another 80 attended advanced training.

Grow Native!, a joint program with the Missouri Department of Agriculture, focuses on promoting the use of native plants. Grow Native! workshops were held from St. Joseph to Cape Girardeau. Ongoing Grow Native! plant school sessions held at Shaw Nature Reserve near St. Louis served up to 60 students each month. In addition, approximately 60 MoDOT employees attended special training on use of natives. Articles and new publications helped expand awareness statewide.



Supporting Conservation in Our Communities

Grants and equipment help volunteer fire departments

MDC, in cooperation with the U.S. Forest Service, provided more than \$376,748 in grants to more than 183 volunteer fire departments. These grants help fund protective clothing, equipment and training.

We also provide equipment to fire departments through two federal programs. The Federal Excess Property Program, which we are phasing out, supplied 34 items with a value of \$605,349. The new Fire Fighter Program supplied 361 items with a value of \$6,631,369.

Helped Missourians help others through meat-donation program

Conservation agents coordinate and support the Share the Harvest program with the Conservation Federation of Missouri, local charitable organizations and local meat processors. Together these groups have supported the donations of more than 145 tons of meat each year the last two years. During FY08, approximately 5,569 hunters donated 260,908 pounds of venison to less fortunate Missourians. Since the inception of the program, nearly 1.7 million pounds of deer meat have been donated to Missouri citizens. Hunters who wish to donate their entire deer may receive a \$35 reduction in the processing price. The \$35 is paid by the Missouri Conservation Federation. Hunters also may designate part of their deer to be donated to the Share the Harvest program.

Agents continued outreach efforts

Conservation agents represented MDC at 6,200 meetings to civic groups, schools, church groups and a wide variety of other organizations. Agents completed 5,800 radio and television programs, published 3,700 newspaper articles and conducted 1,478 public exhibits. As part of their community relations efforts, agents contacted more than 538,000 citizens and answered more than 123,000 telephone calls.

Birds aided by conservation partnerships

A variety of conservation partners, who are promoting "all bird" conservation in Missouri, have established common goals and strategies for data collection, monitoring and evaluation. By providing matching funds, the Missouri Bird Conservation Initiative (MoBCI) Grant program funded projects from many different organizations and partners. MoBCI represents people with a broad range of interests, but those whose common goal is to provide habitats suitable for a wide range of bird species. Forty-eight conservation-oriented organizations and four private citizens have contributed funds to this voluntary partnership of diverse groups.

An All-Bird Conservation Team helped coordinate bird-related initiatives such as Partners in Flight, Northern Bobwhite Conservation Initiative, North American Waterbird Conservation Plan, North American Waterfowl Management Plan and the U.S. Shorebird Conservation Plan. MDC helped Audubon Missouri develop Important Bird Areas, which is the National Audubon Society's part of an

international effort to identify and conserve the areas that are the most important for sustaining bird populations.

MDC has joined the newly formed Avian Conservation Alliance of the Americas, or ACAA, and the Missouri Conservation Heritage Foundation in an international bird conservation project.

The ACAA was formed by nine national Audubon Society chapters. They raised funds for a land-acquisition project in Honduras, where habitat is beneficial for many Missouri birds. Both neotropical migrant birds that breed in Missouri, and breeding habitat for resident Honduran bird species, find common ground there.

The partnership raised \$81,416 for land restoration and acquisition in Pico Bonito National Park near Olanchito, Yoro, Honduras. This area is used by more than 60 migrant bird species that spend the winter there before departing on the trans-Gulf of Mexico spring migration.

Outreach program brings attention to forestry resources

MDC and the Missouri Community Forestry Council jointly sponsored the Missouri Arbor Award of Excellence program. This program recognizes communities throughout the state that act as good stewards of their tree resources. Award categories include municipalities/governments, organizations, businesses and individuals.

Severe weather results in renewed interest in trees

Missouri towns recently experienced a string of devastating weather events, beginning with straight-line winds in the summer of 2006 and a massive ice storm in January 2007. Two ice storms in December 2007 and February 2008 caused additional major damage throughout much of the state.

We worked steadily in storm-damaged areas to provide assistance to municipalities, schools, counties and homeowners. These contacts have resulted in increased interest in the Tree Resource Improvement and Maintenance (TRIM) cost-share program.

In response, our Conservation Commission allocated an additional \$250,000 for the TRIM program to be spent in the counties which were part of either ice storm federal disaster declaration. Those funds will be spent in the next fiscal year. This is the second year in a row that the commission has doubled the funds for this cost-share program.

St. Louis Community Conservation Stewardship Grants awarded

This year the Community Stewardship Grant Program (CSGP) received 11 grant applications, which requested \$129,274. The CSGP advisory committee comprises six people from area agencies and organizations who did not submit grant proposal. This year it awarded nine grants worth \$100,836.40 to these projects:

Ferguson-Florissant School District. *Little Creek Watershed Restoration.* \$15,000. Funds will supplement the creation of a wetland and small pond to prevent gully erosion of Little Creek and filter stormwater runoff. The work at Little Creek is part of a strong collaboration with a steering committee of agencies and community organizations which have committed more than \$300,000 in funds for various aspects of the restoration project.

The Green Center. *Ruth Park Woods Restoration Project.* \$14,620.75. This project has specific goals and a detailed plan to reduce invasive species and implement site revegetation in the mesic forest, riparian corridor and Cypress flat in Ruth Park Woods. Ruth Park Woods has benefited from the collaborative efforts of The Green Center, University City, Forest ReLeaf, Living Lands and Waters, and Missouri Botanical Garden. These partners, along with a dedicated crew of volunteers, continue to offer valuable time and resources to the project.

Carondelet Community Betterment Association. *Bellerive and Sister Marie Charles Parks Native Ecosystem and Habitat Restoration and Creation Project.* \$10,775. A partnership of the Carondelet Community Betterment Association, St. Louis City Parks, the local merchants association and neighborhood watch organization will implement and maintain this project. The project location is unique; it is the only Mississippi bluff overlook in the city of St. Louis parks. The project would fund bluff restoration (using sumac) and a prairie planting in the two adjoining park properties.

Museum of Transportation. *Phase One: Native Landscaping at Museum.* \$10,335. This project would fund the removal of honeysuckle and other invasives on a 6,500-square-foot area, and replanting with Missouri native shrubs and herbaceous plants. The project has commitment from Missouri Master Gardner volunteers and St. Louis County Parks horticulture staff. This project is part

of a long-term and large-scale renovation plan for the museum and surrounding St. Louis County Park land.

St. Charles County Parks and Missouri Master Naturalists. *Indian Camp Creek Park Rain Garden.* \$4,044. St. Charles County Parks will construct a rain garden to capture stormwater runoff and prevent gully erosion downstream, thereby improving the early successional forested wetland and native sedge meadow. Master Naturalists will volunteer on the implementation of the project and also construct bat houses for the site.

Operation Brightside. *Community Connection: Connecting St. Louisans with the Natural Environment.* \$14,400. This project is a continuation of a FY07 CSGP project with the same organization and title. In the first year of the program, Operation Brightside proved successful in using its existing programs and network of community organizations to implement native Missouri plantings at existing community greening sites in the core of St. Louis city. This project would fund an additional three existing community greening projects that are wanting to “go native” with their plantings.

The Magic House. *Native Missouri Plant Gardens/Living Ecosystem Exhibit.* \$10,000. The Magic House has a long-standing partnership with the Kirkwood School District, which will participate in organized volunteer activities to implement and maintain the project. The grant monies would be spent on native plant materials for a 25,000-square-foot area on The Magic House grounds, which will be the new Living Ecosystem exhibit.

City of Lake St. Louis. *Hawk Ridge Park Habitat Restoration.* \$8,470.65. This project is the first phase of the city's long-range plan to improve the habitat in the park. This phase involves removing exotics, planting native shrubs and stabilizing the stream bank. The long-term plan for the area includes continued maintenance of the stream bank and a prairie/savannah restoration in the park.

Greenway Network Inc. *Peru Creek Riparian Corridor Restoration.* \$13,191. The project is located in a new subdivision. The property is owned by a holding company, which is in the process of donating the land to the Greenway Network. It will be designated as a conservation easement. The area is contiguous with a mile-long stream mitiga-

tion bank. The goals of the project are to stabilize 10,000 square feet of stream bank through grading, followed by planting of native trees, shrubs and herbaceous plants.



Helping Private Landowners Advance Conservation

Nursery helps reforest state

The state forest nursery annually grows and distributes approximately 5 million seedlings of more than 50 species. The seedlings include trees and shrubs suitable for reforestation and wildlife habitat restoration activities. The seedlings are planted on both public and private land throughout the state.

Provided financial assistance for landowners to improve state's resources

Approximately 634 private landowners received nearly \$1.18 million in cost-share funds to implement beneficial habitat-management practices for fish, forest and wildlife resources. The funds helped install 1,104 individual conservation practices, impacting nearly 40,000 acres.

Partnerships strengthen support to landowners

Staff developed approximately 35 partnerships with federal, state and non-governmental organizations. These partnerships helped MDC enhance technical and financial assistance and equipment support to landowners interested in improving fish, forest and wildlife resources. Some examples: assisted Missouri USDA with developing and applying \$150 million in Farm Bill conservation programs; collaborated with select Missouri Soil and Water Conservation districts to provide native warm-season grass drills to Missouri landowners; and leveraged staffing, equipment and enhancement funds with conservation habitat organizations.

Technical assistance provided to landowners

Field staff provided timely and responsive service through approximately 41,308 rural and urban landowner contacts, including more than 16,987 on-site landowner visits. Staffers offered technical

assistance to landowners who wanted help with habitat management plans toward achieving their land-use objectives. Staffers also answered 5,025 requests for wildlife nuisance and/or damage assistance, including 1,005 on-site visits.

Conservation agents provide technical assistance, as well. They inspect ponds up to three acres in size, which are stocked free throughout Missouri. During FY08, agents made 21,166 resource management contacts. They delivered 88,120 pounds of food plot seed to 2,636 Missouri landowners in the MDC-administered Missouri Seed program. Agents also assisted with controlled burns, fish stocking and a variety of other management duties on public lands.

Habitat-management workshops were popular with landowners

MDC staff conducted or participated in more than 467 individual events involving private-landowner habitat-management workshops. More than 25,424 people attended the workshops that focused on management techniques to benefit early successional wildlife species such as bobwhite quail, rabbit and grassland-bird species. Wildlife damage biologists gave 119 public programs on trapping and damage prevention to 6,718 participants. In addition to providing programs on conservation-related topics, the biologists regularly interact with statewide media.

Assisted NRCS in wetland restoration efforts

MDC has assisted the Natural Resources Conservation Service (NRCS) in obligating more than \$176 million since 1992 to restore wetlands back into the agricultural landscape. Wetland teams composed of MDC and U.S. Department of Agriculture staffs complete restoration aspects of Wetland Reserve Program easements. Missouri has recorded 988 easements which cover 126,079 acres.

Bobwhite Quail Challenge Grant Initiative yields funding requests

The Bobwhite Quail Challenge Grant Initiative was created in May 2007 by the Conservation Commission. The initiative's goal was to challenge conservation organizations interested in establishing bobwhite quail habitat in partnership with private landowners throughout the state. Nine conservation organizations were selected to sub-

mit proposals based on their demonstrated history of providing technical and financial assistance to private landowners. Four organizations responded with funding requests. MDC completed cooperative agreements with each of the organizations and \$190,000 was delivered to Quail Unlimited, Quail/Pheasants Forever, the National Wild Turkey Federation, and the Missouri Association of Soil and Water Conservation Districts (MASWCD) in FY08.

New habitat buffers installed to benefit upland birds

The newest USDA Farm Bill program, the Conservation Security Program, is resulting in some landscape-level changes in some of the most intensive agricultural landscapes in the state. More than 15 million linear feet of native-grass field borders and more than 50,000 acres of rice-field reflooding are being installed through the program.

In FY08, a team of MDC and USDA staff received a national award from Quail Unlimited for being the first county (Scott) in the nation to meet the habitat and quail population goals of the Northern Bobwhite Conservation Initiative. The Conservation Security Program was responsible for this achievement. The newest Conservation Reserve Program practice, CP33 Habitat Buffers for Upland Birds, has committed more than 27,000 acres of the 32,600 acres allotted to Missouri. Field staff report frequent sightings of quail and quail broods in and near the new buffers.

Participated in major ag conferences

In an effort to connect with key agricultural leaders and agri-business in the state, MDC participated in each of the major agricultural conferences and trade shows throughout FY08. In addition to events such as the Farm Bureau Annual Conference, Governors Conference on Agriculture, Missouri State Fair and the Missouri Cattle Industry Annual Convention, MDC also supported technical efforts in partnership with agricultural commodity organizations. Department staff participated in a working group chaired by the University of Missouri Commercial Agriculture Program to develop odor abatement strategies using windbreak and herbaceous plantings for confined livestock operations. Another example included MDC's participation in the Missouri Livestock and Poultry Health Council to continue dialogue regarding feral hogs and various diseases associated with wildlife species.

Private land detail position established

We established a detail position to continue the dialogue with stakeholders regarding the direction of Forestry's private-land efforts. We also will review and recommend alternatives for a new Forestry private-land initiative which, among other things, could include a replacement for the Forest Crop Land Program.

Dove Agroforestry Project benefits private landowners and doves

The Dove Agroforestry Project is a broad-scale cooperative venture with the University of Missouri's Center for Agroforestry, University of Missouri School of Fisheries and Wildlife Sciences, the U.S. Fish and Wildlife Service—Webless Migratory Game Bird Research Program and the Missouri Department of Conservation. Knowledge generated from this project will:

1. guide management decisions for private landowners combining agroforestry practices and managed dove-hunting fields,
2. provide information about relationships between observed recruitment from radio-marked doves and fall age ratios from hunter-killed doves,
3. compare actual and reported crippling rates during the hunting season, and
4. provide information on harvest rates on a heavily harvested local population of mourning doves.

Accomplishments from the first field season include: 1,448 trees planted, 152 subcutaneous transmitter implant surgeries conducted in the field, 25 nests located by following movements of female mourning dove implanted with subcutaneous radio transmitters, 10 nestling surgeries conducted to implant subcutaneous radio transmitters, 57 mortalities or dropped transmitters noted (not including birds killed during first three days of the hunting season), more than 2,000 locations from radio-marked doves recorded, 738 mourning doves banded and 212 recaptured, and an automatic data-collection system was designed and implemented.

Thirty-nine birds with radio transmitters were detected on opening day of the hunting season; the next day 10 were shot and recovered, and two were crippled and located. In all, 26 radioed doves were killed during the first three days of the season.

Provided private lake and stream management assistance

We responded to 6,891 requests for watershed, floodplain, riparian corridor and stream or lake management information and technical assistance on streams or lakes. We made 1,504 on-site visits and wrote 215 recommendation letters or management plans. On-site work included 213 fish-population surveys, 396 stocking inspections, 18 renovations and 49 fish-kill investigations. Staff conducted 37 stream or lake-management workshops attended by 1,328 people. We also coordinated or participated in 41 active watershed-focused resource-management projects.

CREP incentive payments made

MDC collaborated with the USDA Farm Service Agency, USDA Natural Resources Conservation Service, Missouri Department of Natural Resources, Missouri Department of Agriculture, and the Missouri Association of Soil and Water Conservation Districts to establish a 40,000-acre Missouri Conservation Reserve Enhancement Program (CREP). CREP is part of the Conservation Reserve Program (CRP) established under the 1982 federal Farm Bill.

Under the program, landowners contract to take erosion-prone crop and pasture acreage out of production for 14 to 15 years. They receive annual payments on a per-acre basis.

The goal of CREP is to improve drinking-water quality, protect public health, enhance bobwhite-quail and grassland-bird habitat and conserve soil and water on agricultural cropland in approved Missouri watersheds.

Under the agreement, MDC provided \$1 million during FY07 and an additional \$1 million in FY08 for incentive payments to landowners to match up to \$50 million in federal monies. The payments of \$100 per acre encouraged landowners to plant native grasses, wildflowers, trees and shrubs or to restore wetlands. At the end of the fiscal year, CREP had more than 23,000 acres under contract, with several thousand more in the application process. This was the last year of a two-year agreement.

Implemented conservation equipment grant program

In response to increasing requests to support purchases of habitat-related agricultural implements, MDC designed and initiated the Conservation

Equipment Grant Program. The program targeted partner organizations that assist MDC with delivering beneficial private-land habitat programs and technical assistance to private landowners across the state.

We awarded approximately \$32,000 in grants to six separate cooperating organizations for items such as native grass drills and prescribed-burn equipment. In turn, the groups provided \$10,600 in matching funds and agreed to pay back 75 percent of MDC's contribution within five years. Each entity signed a cooperative agreement.

Participating partners include the Missouri State Quail Unlimited Council, Pheasants Forever and several individual county Soil and Water Conservation District offices. In exchange for funding, the groups maintain the habitat equipment, handle all coordination with landowners and provide annual summary reports to MDC.

Evaluated CRP program for upland birds

In 2004, U.S. Department of Agriculture-Farm Services Agency (USDA-FSA) announced a new continuous CRP program under the Farm Bill called CP-33 or Habitat Buffers for Upland Birds. Under CP-33, landowners receive payment for establishing bird-friendly vegetation on previously cropped acres in a 30- to 120-foot buffer on the edges of row-crop fields.

With this new conservation practice, USDA-FSA also mandated a national monitoring and evaluation plan to measure the response of birds to this program. This is the first large-scale effort to monitor the impacts of a Farm Bill habitat program on wildlife. Missouri's monitoring effort consists of 60 sample plots enrolled in CP-33, paired with 60 control plots that are not enrolled in the program. We survey all grassland birds during the spring breeding season and conduct fall covey counts on bobwhite quail in October of each year.

We are preparing for our third fall-covey sampling effort and have completed two seasons of breeding-bird surveys. We also monitor the establishment and growth of the vegetation planted in the buffers. The buffers, which are one to three years old, are becoming suitable nesting and brood-rearing habitat for grassland birds.



Serving Nature and You on Conservation Areas

Wetland rehabilitation continues

An interdisciplinary team of wetland experts continues to develop plans for rehabilitation of the five oldest wetland management areas (Fountain Grove, Duck Creek, Montrose, Schell-Osage and Ted Shanks).

Phase II of the renovation at Fountain Grove Conservation Area was met with above average rainfall and is estimated to be completed the fall of 2009. Work at Ted Shanks Conservation Area is approximately two-thirds complete, with only one phase remaining. Engineering design has been completed for Montrose Conservation Area, and Duck Creek Conservation Area has entered the early stages. Renovation work includes new water-control structures, pumps, levee repair and pool excavation.

We've established a diverse assemblage of conservation partnerships necessary to secure federal grants.

Made habitat improvements to state's forest and woodlands

We conducted forest- and woodland-habitat improvement on 13,486 acres of state land. This included thinning young trees on 4,023 acres, post-sale cultural work of 1,198 acres, prescribed fires on 708 acres and harvest of 7,557 acres. The table below shows the acres and volume by harvest type.

Type Cut	Acres	Percent	Thousand of board feet	Percent
Regeneration	1,701	22	5,414	36
Shelterwood	794	11	3,641	24
Intermediate	2,577	34	2,183	14
Unevenaged	2,485	33	3,915	26
TOTAL	7,557	100	15,153	100

Study seeks ways to control grass

Reed canary grass is an aggressive competitor in certain wetland systems. Once established, it can alter the physical environment and further enhance its competitive abilities. MDC did a study to determine if the grass could be controlled by disking, cover crops (corn and winter wheat), and a combination of disking and herbicide. Preliminary results indicate that all treatments were effective in reducing the density and coverage of reed canary grass. Disking, combined with spraying, was the most effective control. We will evaluate the treatments further to assist managers in the best options for treating the grass.

Public lands equestrian-use plan to arise from survey

Conservation areas are used by many people for many purposes, and horse riding is one of the more popular forms of recreation on them. We developed a joint statewide mail survey of horse-riding enthusiasts in cooperation with the Missouri Department of Natural Resources, National Parks Service and the U.S. Forest Service. It was mailed to Missouri horse owners and handed out to riders at major trail rides and outfitters in the spring of 2008.

Findings show that:

- Most Missourians are already within 30 minutes or less of public land that allows trail riding.
- Missourians took 181,500 total riding trips on public land in 2007. These included more than 68,000 trips on 58 MDC areas.
- Total spending on those trips is estimated at \$27 million (with a total impact of \$48 million).
- About 38 percent of riders had ridden on public lands in 2007.
- The average ride was about half a day.

Results are being used as a basis for the development of a plan for equestrian use on public lands in the state.

Tested the use of consultants for state land forest management

Contracting with consultants for inventory, timber marking and sale administration was tested this year. We contracted 1,332 acres of inventory on three compartments, timber marking on one compartment, and harvest administration on 247 acres following the sale of the timber. Additional marking projects are in progress for FY09.

Increased active management on MDC-owned and -managed lands

MDC has increased active management in the last few years on MDC lands—especially for quail and grassland birds. During FY08, MDC conducted habitat-management activities on approximately 180,000 acres of public land, with an additional 100 miles of edge habitat. Staff spent nearly 323,862 hours department-wide on area maintenance; a portion of this time was spent repairing vandalism to signs and structures.

Adopt-A-Trail Program thrives

The Adopt-A-Trail Program, which began in the fall of 2003, provides opportunities for hikers, bicyclists and equestrians to assist conservation-area staff. Volunteers may monitor, maintain and help to enhance trails and trailheads.

In FY08, 44 volunteers or groups of volunteers reported spending 963 hours on conservation-area trails. Participants include saddle clubs, mountain bikers, scouts, businesses, retirees and many others.



Accounting for Department Operations

Listened to Missourians

The Department of Conservation believes that all Missouri citizens deserve respect, and that part of delivering excellent public service is to listen and understand what Missourians say about conservation programs and services.

We conduct a variety of scientifically sound, unbiased and representative efforts each year in an effort to understand public opinions, expectations and recreation participation. This information guides decisions about regulations and fish, forest and wildlife management.

In FY08 there were 58 activities that involved 92,365 people. These included public surveys, focus groups and public meetings. In addition, MDC's ombudsman and the staff of *Missouri Conservationist* magazine answered dozens of questions daily from the public.

Provided staff and equipment assistance in disaster relief/response situations

MDC's promise to serve the public extends beyond our traditional goal to provide exceptional customer service. Equally important are our activities instrumental to the safety of our stakeholders and employees, and our responses to catastrophes within and outside our state borders. During FY08, we assisted in five Missouri disaster relief/response situations, including two ice storms, one tornado and three floods.

At the request of Missouri's State Emergency Management Agency (SEMA), MDC employees provided a variety of services to affected communities. They used heavy equipment and chainsaws to clear roads of downed, ice-covered trees and limbs. They also used heavy equipment, ATVs, and boats and vehicles to maintain levees, transport sandbags and assist with water rescue. Staff provided security details and traffic control when needed, and coordinated shelter efforts for citizens stranded by events in their areas.

Forest resource advisory council formed

The Missouri Forest Resource Advisory Council was established, with Dr. Gene Garrett from the University of Missouri School of Natural Resources as chairman. This diverse group of stakeholders is already tackling a number of critical issues concerning Missouri's forest resources.

Integrated Data Framework to consolidate computer information

Over time, key management information for the agency has come to reside in various unrelated computer systems or information "silos" throughout the organization. This lack of a consolidated information hub or "data warehouse" forces agency staff to spend considerable time gathering information in order to respond to management questions, public inquiries or legislative concerns.

Integrated Data Framework is an effort to consolidate and integrate, into a single electronic place, existing and new sources of information that will be used to make more informed management and business decisions.

During 2007, MDC hired a contractor to help examine what information systems existed, what information was stored in those systems, what information staff required to effectively do their jobs, how best to integrate the information and to perform an analysis to map out where we want to

go. This initial planning phase was completed during 2007, with a seven-part project being recommended.

The Conservation Commission chose to fund two recommendations from the study for FY08. Implementation of the financial-tracking information hub and development of the geospatial-tracking component are two key projects for agency staff. The information hub, data warehouse and financial tracking efforts were completed in July 2008. Work on the geospatial tracking component will continue through 2008.

When the geospatial application becomes operational MDC-wide in FY11, it will allow managers to track where accomplishments actually took place on the landscape and the amount of time spent performing the various activities. It also will provide the links back to current financial systems.

Tracked strategic plan accomplishments

Fiscal year 2008 was the second year of tracking accomplishments of The Next Generation of Conservation, MDC's strategic plan approved by the Conservation Commission in March 2006. The plan identifies nine goals, 28 results we want to achieve and 61 specific actions that MDC will work with Missourians to achieve. For each of the action items, performance measures and staff responsible for reporting are identified. An automated, web-based data-entry program facilitates accomplishment tracking.

Further development of the program in FY08 includes the ability to generate reports showing annual and cumulative accomplishments. The Next Generation of Conservation is available online at www.missouriconservation.org/documents/about/nextgen.pdf

Issued seven internal audit reports

MDC employs two full-time internal auditors who perform regular, independent audits to ensure that public funds are expended in a responsible manner. During the year ended June 30, 2008, MDC internal auditors reviewed various aspects of operations and issued seven internal audit reports. There were no major findings noted with the business practices reviewed.

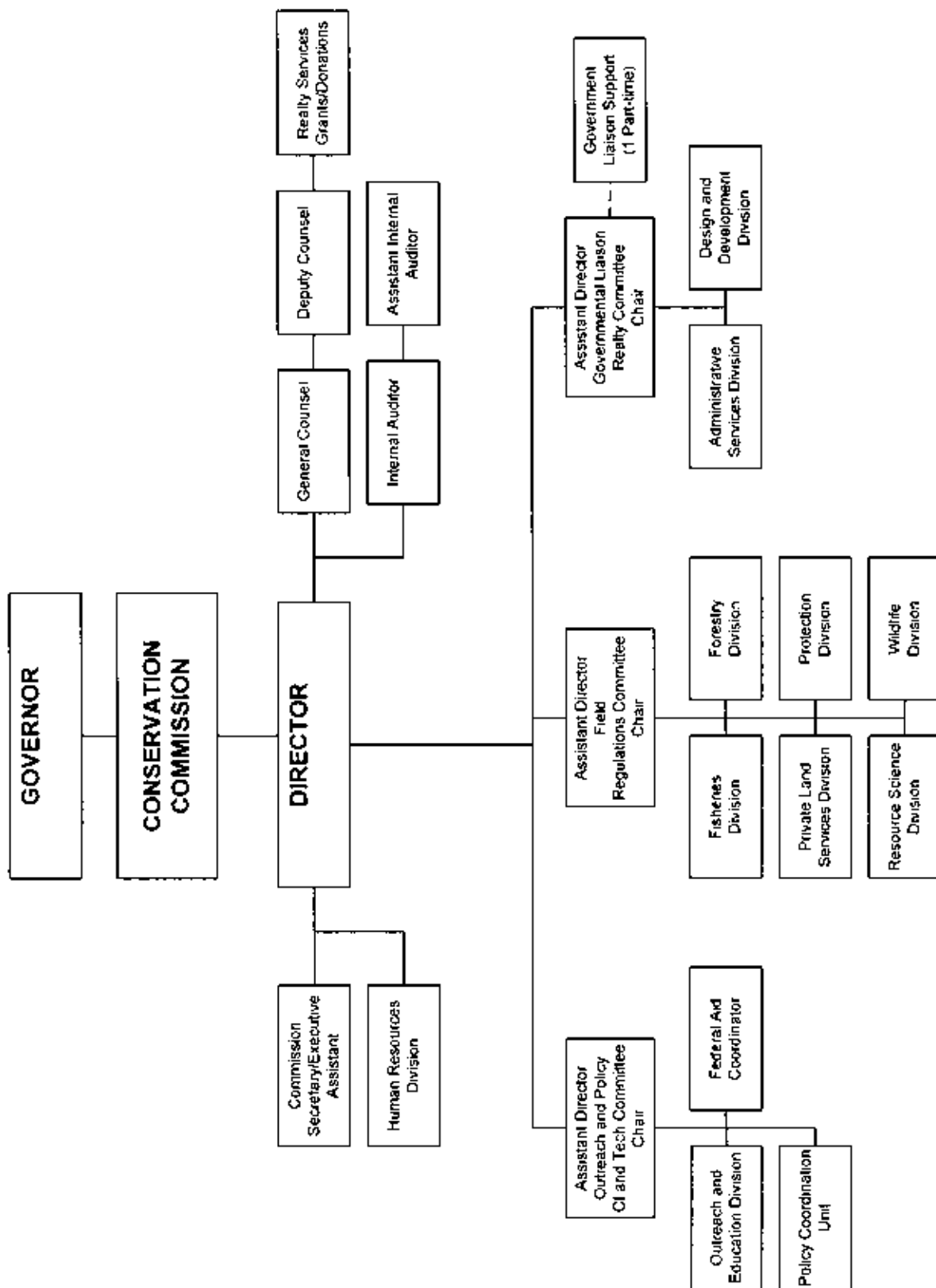
Organization and Administrative Descriptions

- ▲ Department Regions and Units
- ▲ Department Organizational Chart
- ▲ Director's Office and Department Divisions

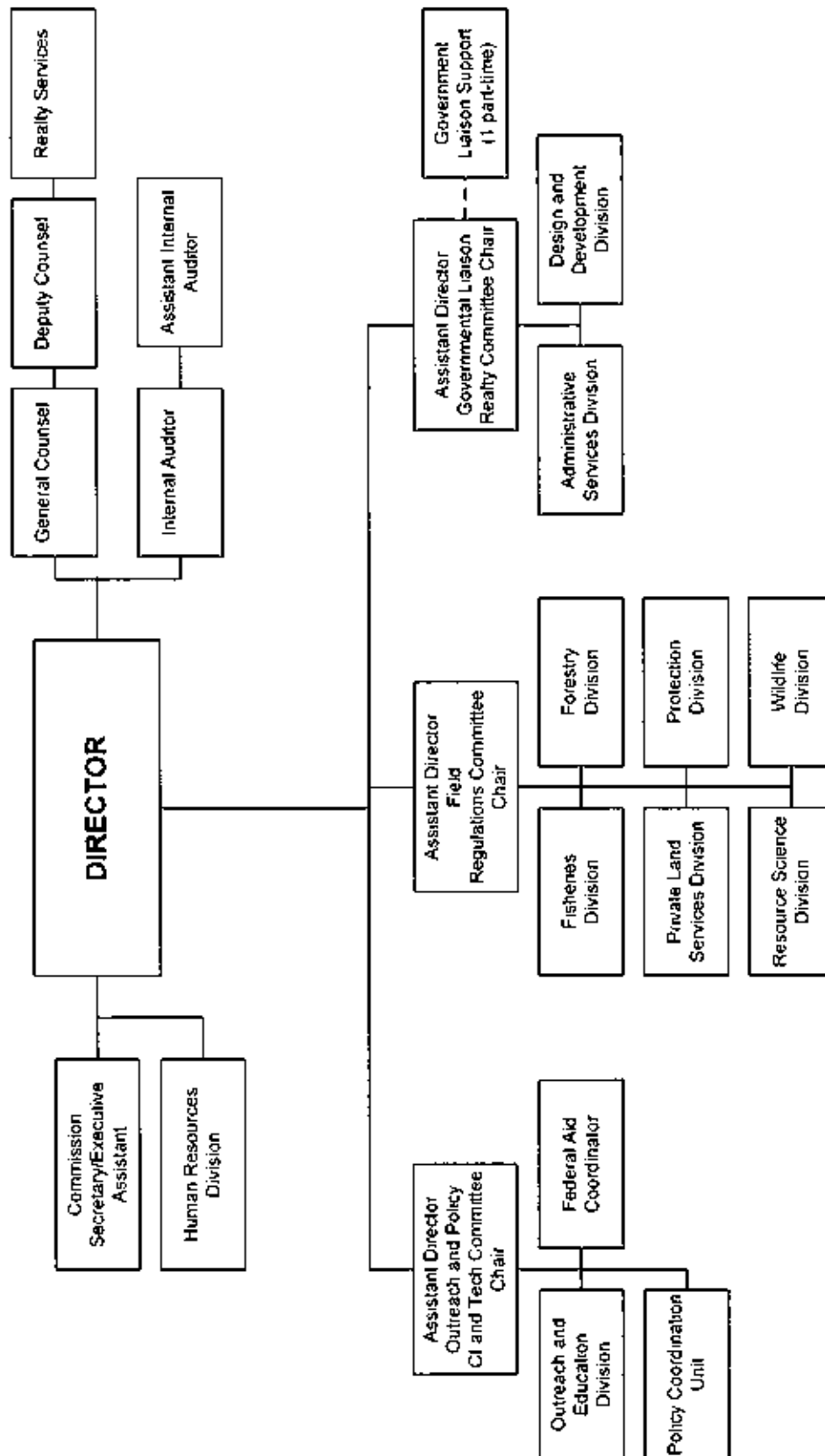


Cartography by: Kevin Borisenko, January 2003 | N:\MAPS\RegionUnitsNoShade.pdf.

MISSOURI DEPARTMENT OF CONSERVATION



Director's Office



Director's Office

John Hoskins, Director

Director John Hoskins, appointed by the Conservation Commission, is the administrative officer of the Department of Conservation and directly oversees the three assistant directors, general counsel, internal auditor and the Human Resources Division administrator.

Dave Erickson, Assistant Director

Assistant Director Dave Erickson administers field operations for MDC and directly oversees division administrators of Fisheries, Wildlife, Forestry, Private Land Services, Protection and Resource Science. He is also chair of the Regulations Committee, a standing committee that recommends statewide wildlife regulations to the Conservation Commission.

Denise Brown, Assistant Director (replaced by Tim Ripperger, March 2008)

Assistant Director Denise Brown is the MDC liaison with the Missouri congressional delegation and federal agencies, and directly oversees the Outreach and Education Division and the Policy Coordination Unit. She also chairs the Capital Improvements and Information Technology Committee.

Bob Ziehmer, Assistant Director

Assistant Director Bob Ziehmer is the MDC liaison with the state legislature, state agencies in the executive branch and the governor's office staff. He directly oversees the Administrative Services Division, the Design and Development Division, and serves as chair of the Realty Committee. He also represents MDC on the Land Reclamation Commission.

Tracy McGinnis, General Counsel

General Counsel Tracy McGinnis is legal adviser to MDC staff, the director and Conservation Commission.

Nancy Dubbert, Internal Auditor

Internal Auditor Nancy Dubbert serves MDC by independently analyzing MDC operations, policies, procedures, records and compliance with laws and regulations to ensure effectiveness and accountability. The internal auditor also is custodian of records and oversees the assistant internal auditor.

Policy Coordination Unit

The Policy Coordination Unit serves the director's office and the agency by managing agency-wide, statewide, complex or sensitive issues. The team of 10 staff is supervised by Jane Epperson. Examples of services include:

- Coordinating intra- and inter-state fish, forest and wildlife resources associated with the Missouri, Mississippi and White rivers.
- Coordinating additions or revisions to the Area and Resources Management Policy and Procedures Manual.
- Obtaining necessary state and federal environmental regulatory permits and cultural resources clearances for statewide MDC construction and land management activities.
- Representing public fish, forest and wildlife interests by coordinating and providing comments or recommendations to federal agencies authorized to conduct environmental reviews and approve project permits.
- Responding to public requests for site-specific information regarding species and communities of conservation concern by providing comments or recommendations to minimize impacts.

- Coordinating public involvement activities including social and economic survey analysis, public-use surveys and regional citizen forums.
- Guiding MDC's strategic planning process.

Realty Services

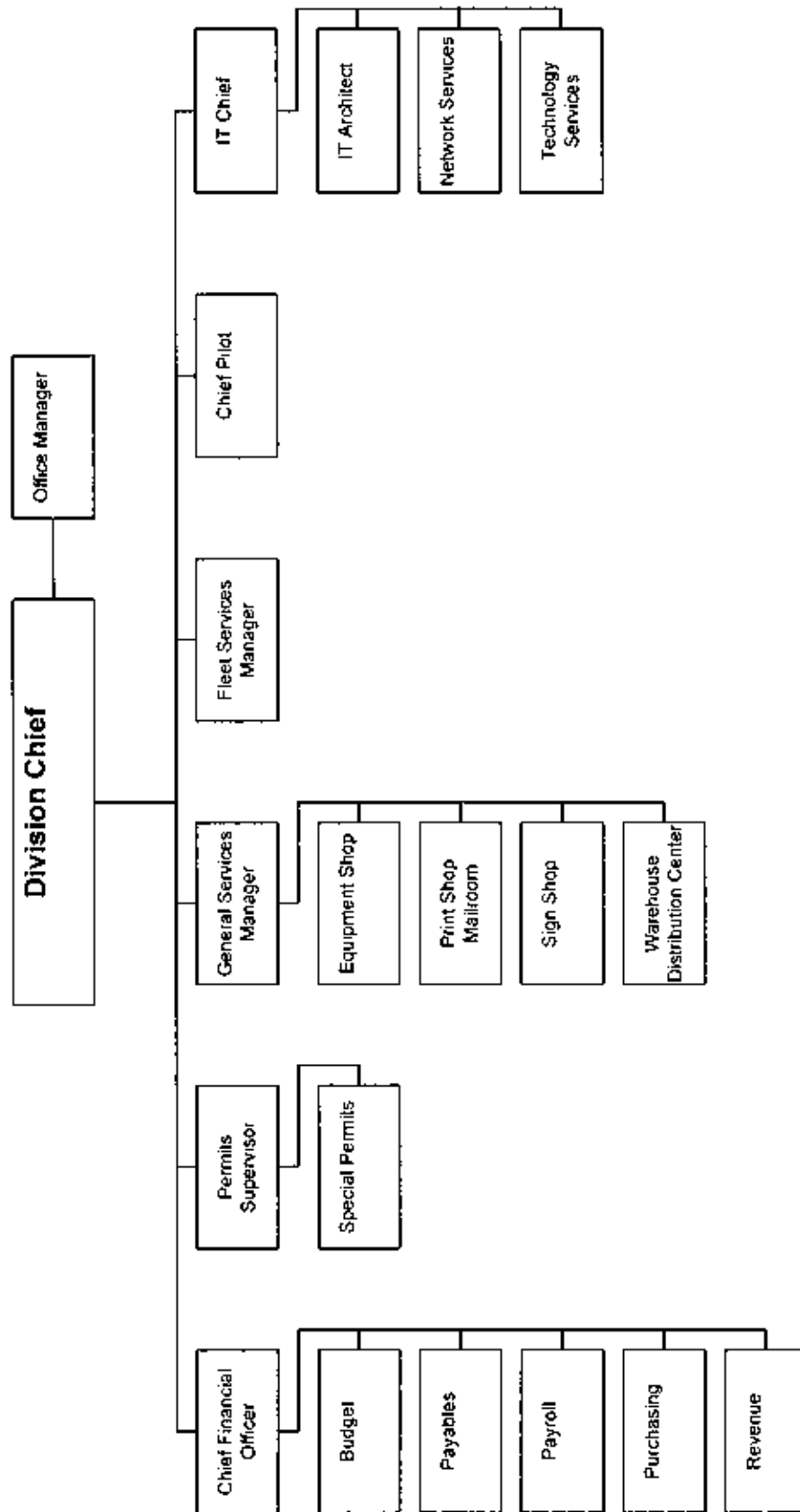
Realty Services is responsible for handling the acquisition of all land and land rights for MDC; resolving boundary, encroachment, trespass or access issues on MDC areas; handling easement requests; maintaining records of MDC's real estate inventory; and distributing annual in-lieu tax payments to Missouri's 114 counties.

Federal Aid

The federal aid staff is MDC's primary administrator of federal-aid granting opportunities. Some of the agencies in which federal-aid monies are obtained and managed include the U.S. Fish and Wildlife Service, U.S. Forest Service, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency and Natural Resource Conservation Service. MDC's federal-aid staff administers approximately 85 federal grants, with the most significant of these being the Sport Fish and Wildlife Restoration grants.



Administrative Services Division



Administrative Services Division

Mission: *Serving MDC staff to provide agency-wide support and expertise in a manner that ensures financial accountability; promotes wise use of assets; provides ancillary services; and offers technological solutions for satisfying Department responsibilities and needs that meet public expectations.*

Administrative Services Division fulfills its mission by serving MDC's internal and external stakeholders through the following sections that comprise this division.

Programs

Financial Services—This section provides a broad range of financial functions that support MDC's operations, while carefully managing the agency's assets, which have been entrusted to its care. Revenue projections and management, internal and executive budget management, financial analytical support, agricultural crop management, accounts payable and MDC's payroll are the functions this unit oversees.

Permit Services—This section is responsible for the distribution and management of point-of-sale automated permits, managed hunt/special permits, and commercial and landowner permits.

Fleet Services—The unit is responsible for ordering department vehicles and fixed-asset inventory. We seek ways to improve and minimize the traveling performed with state vehicles.

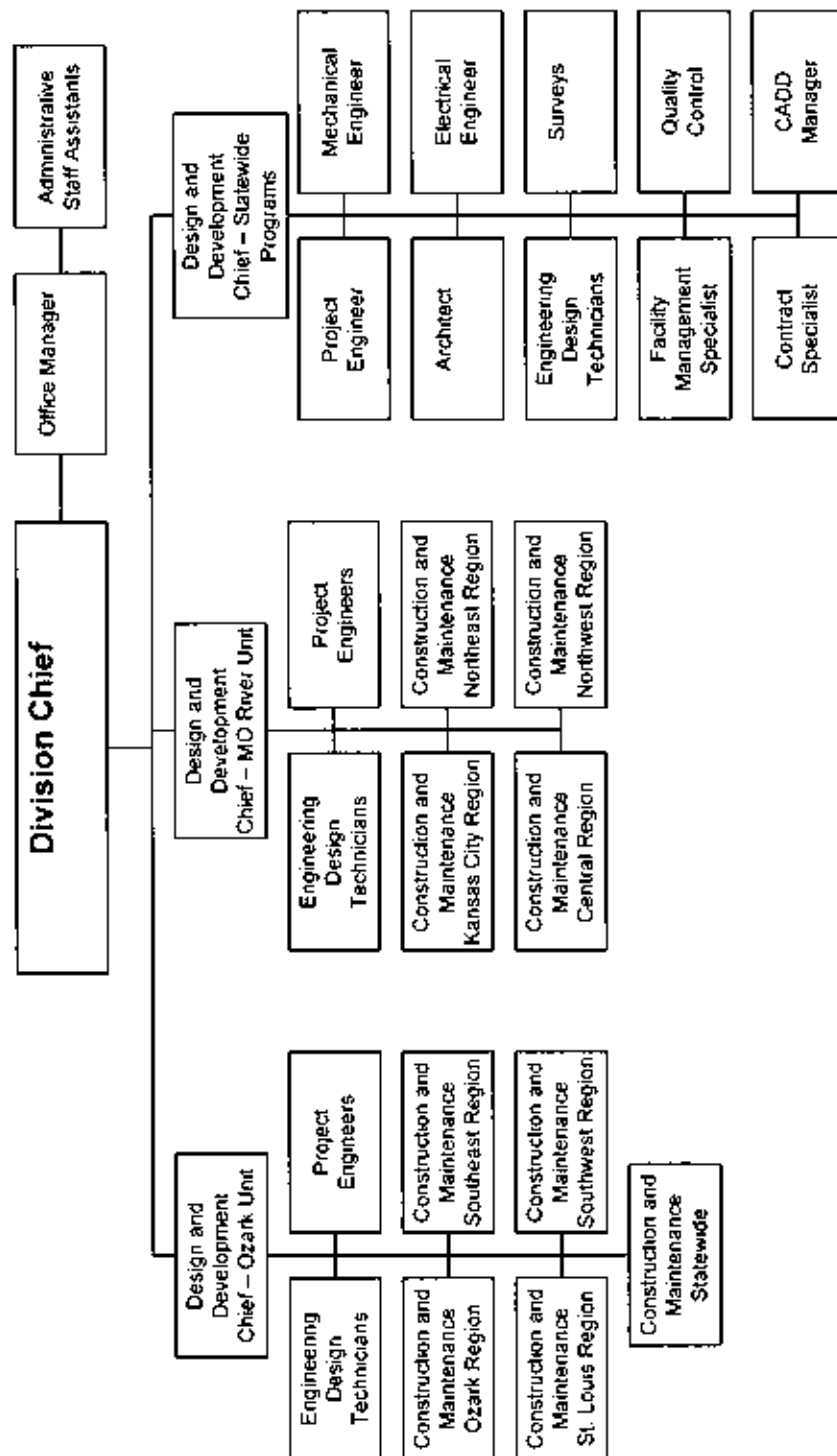
Information Technology Services—Communication responsibility for the entire agency is entrusted to this section. Better known as IT, employees provide a wide range of services which include data, telecommunications and radio system management, helpdesk operations, software support, network operations and application-development functions.

General Services—This section oversees equipment management and maintenance, sign production, distribution center operations, and printing and mailing functions.

Flight Services—This unit provides flight services for MDC resource functions such as wildlife management, fire control and enforcement. Flight Services is responsible for the upkeep and maintenance of MDC-owned aviation equipment.

Administrative Services Division makes every effort to achieve its mission by maintaining the financial integrity of MDC and ensuring prudent and frugal use of its assets. We provide a broad range of high-quality support services to MDC's staff and programs. Not only do we lead and facilitate the effective use of technology in MDC operations, but we also acquire and maintain MDC equipment.

Design and Development Division



Design and Development Division

Mission: *To provide high-quality professional engineering, architectural, surveying and construction/maintenance services to assist MDC in carrying out its mission.*

Goals

- Support MDC by designing and constructing public-use facilities that are in harmony with the environment and enhance public use of our natural resources
- Provide sound conservation engineering assistance to other MDC divisions and outside partners (communities, counties, landowners)
- Provide high-quality maintenance to MDC facilities and conservation areas
- Provide excellent and timely customer service

Organization

The division is organized into three units, with administrative and design staff located in the central office, and construction and maintenance staff located in each of the eight regions.

Programs

Engineering and Architecture—The division provides engineering and architectural designs to implement capital improvement/construction development (CI/CD) budget. Staff handles all aspects of design and development on projects which may include: performing investigations, conducting feasibility studies and/or environmental assessments; and preparing design drawings with associated contract specifications. Types of projects include boat accesses, docks, roads, parking areas, office and storage buildings, fish hatcheries, fishing lakes and ponds, nature centers, shooting ranges, trails and wetlands.

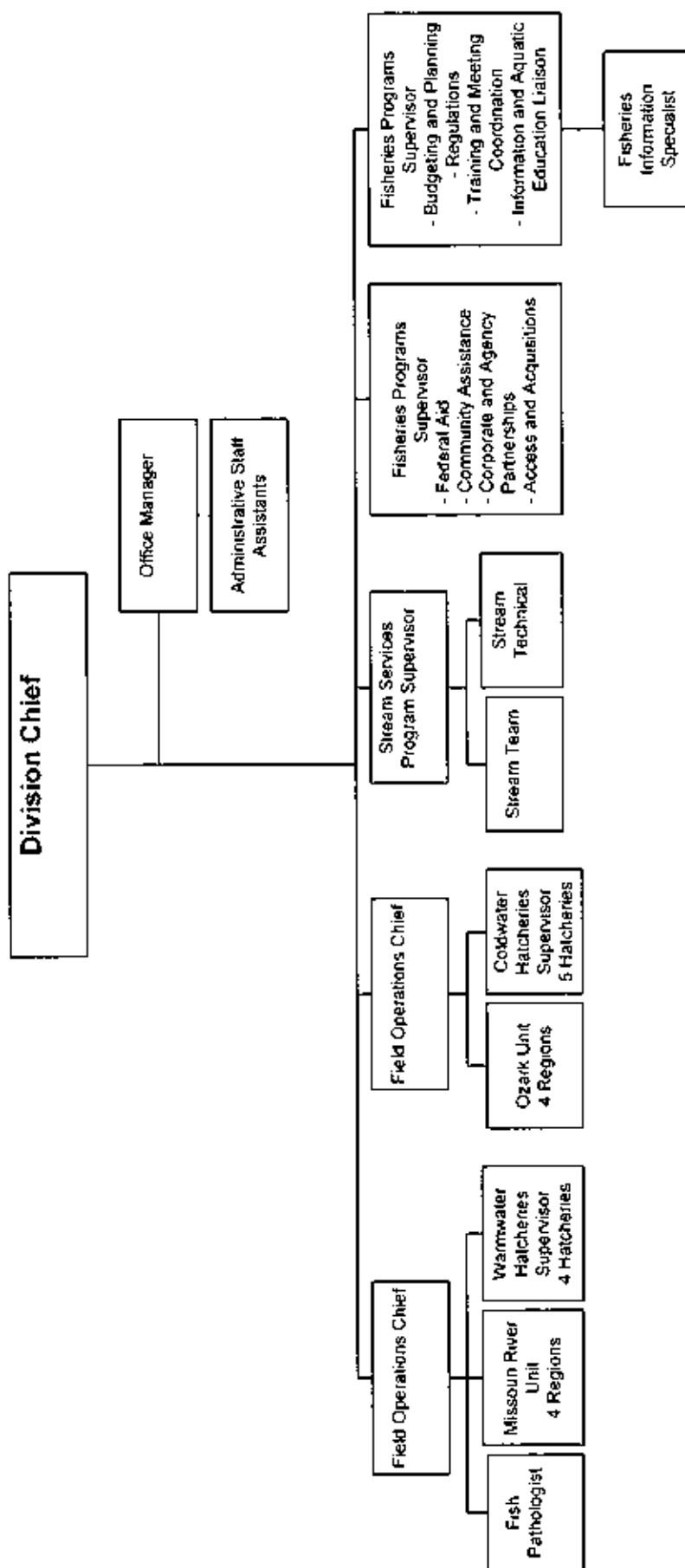
Technical Support—In addition to handling the CI/CD projects, engineering staff also provides support and design expertise on non-capital improvement projects to MDC divisions. Staff also provides design drawings and estimated quantities on MDC's repair and renovation projects; these efforts support our regional construction and maintenance superintendents and field resource staff.

Surveys—Employees in this unit are responsible for engineering and construction surveys and land boundary surveying for property boundary delineation.

Construction and Maintenance—In each region, the division maintains superintendents, carpenters, equipment operators and facility maintenance technicians. This staff is responsible for the construction of capital-improvement projects assigned to it, as well as small construction projects, and repair and renovation projects needed by other MDC divisions. They provide facility maintenance to nature centers and regional offices, and perform routine maintenance at unstaffed department areas. Other maintenance tasks include mowing grass, grading parking areas and entry roads, cleaning boat ramps and performing minor maintenance on privies, docks and pavilions.

County Aid Road Trust (CART)—The division administers the department's CART Program which involves cost sharing of roadway maintenance with counties and other governmental subdivisions to help ensure that roads accessing department areas are properly maintained and provide adequate access.

Fisheries Division



Fisheries Division

Mission: *To professionally manage the fish and associated aquatic plants and animals of Missouri for the use and enjoyment of the people.*

Goals: To maintain aquatic biodiversity, reduce the effects of aquatic nuisance species, provide enjoyable fishing trips, protect aquatic habitat, and inform and educate the public about Missouri's aquatic resources.

Missouri's aquatic resources are vast and diverse. Missouri has almost 17,000 miles of permanent rivers and streams and another 39,000 miles of intermittent streams. The state also has about 780,000 acres of lakes (36 percent public). Each year, millions of people use and enjoy our waters, and fishing continues to be one of our most popular outdoor activities. About 22 percent of our residents aged 16 and older fish sometime during the year. During 2007, MDC sold 1,500,942 fishing permits and tags of all types to 816,765 people. Fishing is big business and very important to the state's tourism industry.

Organization: To carry out its mission and achieve its goals, the division has fisheries management staff deployed in MDC's eight regions. Management efforts are supported by four warmwater fish hatcheries, one fish-rearing station, five cold water fish hatcheries, the Stream Unit and central office staff.

Programs

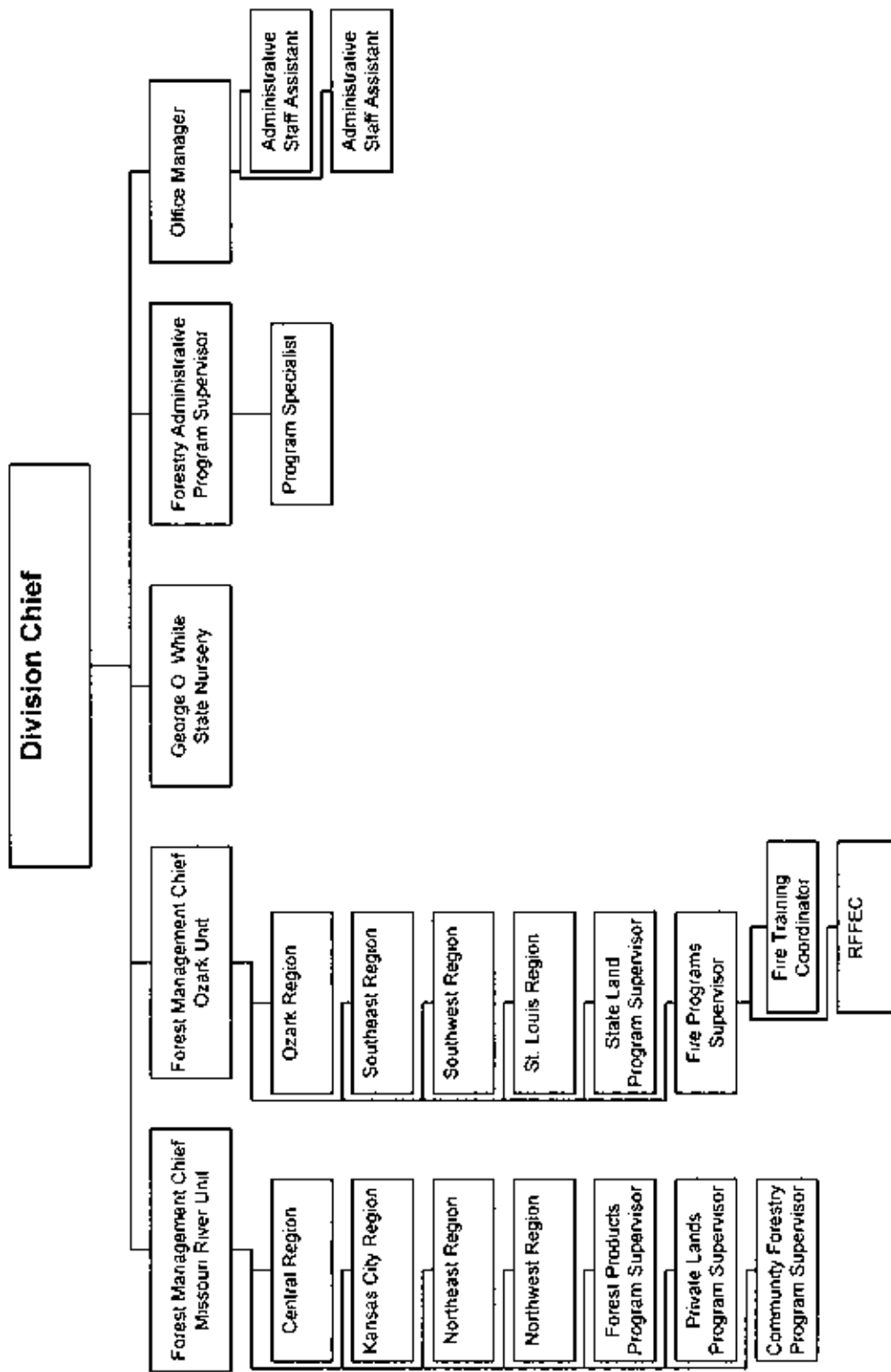
Regional staff is responsible for monitoring and maintaining the quality of the aquatic resources, managing the public fisheries resources, providing technical guidance in lake and stream management to private landowners and other state and federal agencies, providing and assisting with public information and education, and representing the division and MDC on matters pertaining to the aquatic resources of their region.

The staffs of the four warmwater hatcheries and the fish-rearing station are responsible for rearing the fish needed to stock public waters, waters used for special fishing events and aquatic resource education, and private lakes that qualify for initial stocking of fingerling fish. They also play a vital role in our efforts to restore state and federal endangered species. The five coldwater hatcheries rear the trout needed to stock public waters. Their employees are also responsible for stocking and managing the four trout parks that are enjoyed by more than 400,000 anglers each year.

The Streams Unit is responsible for stream public-involvement programs. It also oversees a Stream Technical Unit, which provides technical stream services to MDC staff, other state and federal agencies and private landowners. Public-involvement programs include the Missouri Stream Team and Volunteer Water Quality Monitoring programs, which consist of 74,000 citizen volunteers. Both are cosponsored by the Missouri Department of Natural Resources and the Missouri Conservation Federation.

Central office staff directs and administers division programs, works on the acquisition and development of public fishing and boat access areas, coordinates angler recognition programs, develops and revises technical and popular written materials and provides administrative support for division and MDC staff and programs.

Forestry Division



Forestry Division

Mission: *To protect and manage the forests of the state for long-term resource health and sustainability, and for the use and enjoyment of Missouri's citizens.*

Goals

- Conduct public-land management activities that are scientifically based and aimed at developing and maintaining healthy forest and woodland ecosystems
- Engage private-forest landowners, communities and homeowners in sound, scientifically based tree and forest management through education, technical service and the development of partnerships with other agencies, organizations and forest products industry

Organization: To fulfill its mission, the division is organized into seven main program areas as described below. Administrative staff members are assigned to specific program areas, while field staff work across all program areas.

Programs

Private Land—Foresters assist Missouri landowners with forest management through one-on-one contacts. Foresters often use the Tree Farm program, Forest Stewardship program, state and federal cost-share programs, and offer technical advice to assist landowners. We help more than 3,000 landowners with management on 30,000-plus acres annually.

Public Land—The division manages more than 440,000 acres of public forest land. Foresters also provide technical assistance on lands managed by the Wildlife Division. We annually complete more than 45,000 acres of active management. This includes forest inventory, tree planting, timber sales, forest stand improvement, wildlife management practices, and glade and savanna management.

Fire—We have statutory responsibility for wildfire suppression in the state. Division personnel work closely with more than 800 fire departments to offer training, provide federal excess property, provide grants for the purchase of fire equipment and promote wildfire prevention activities.

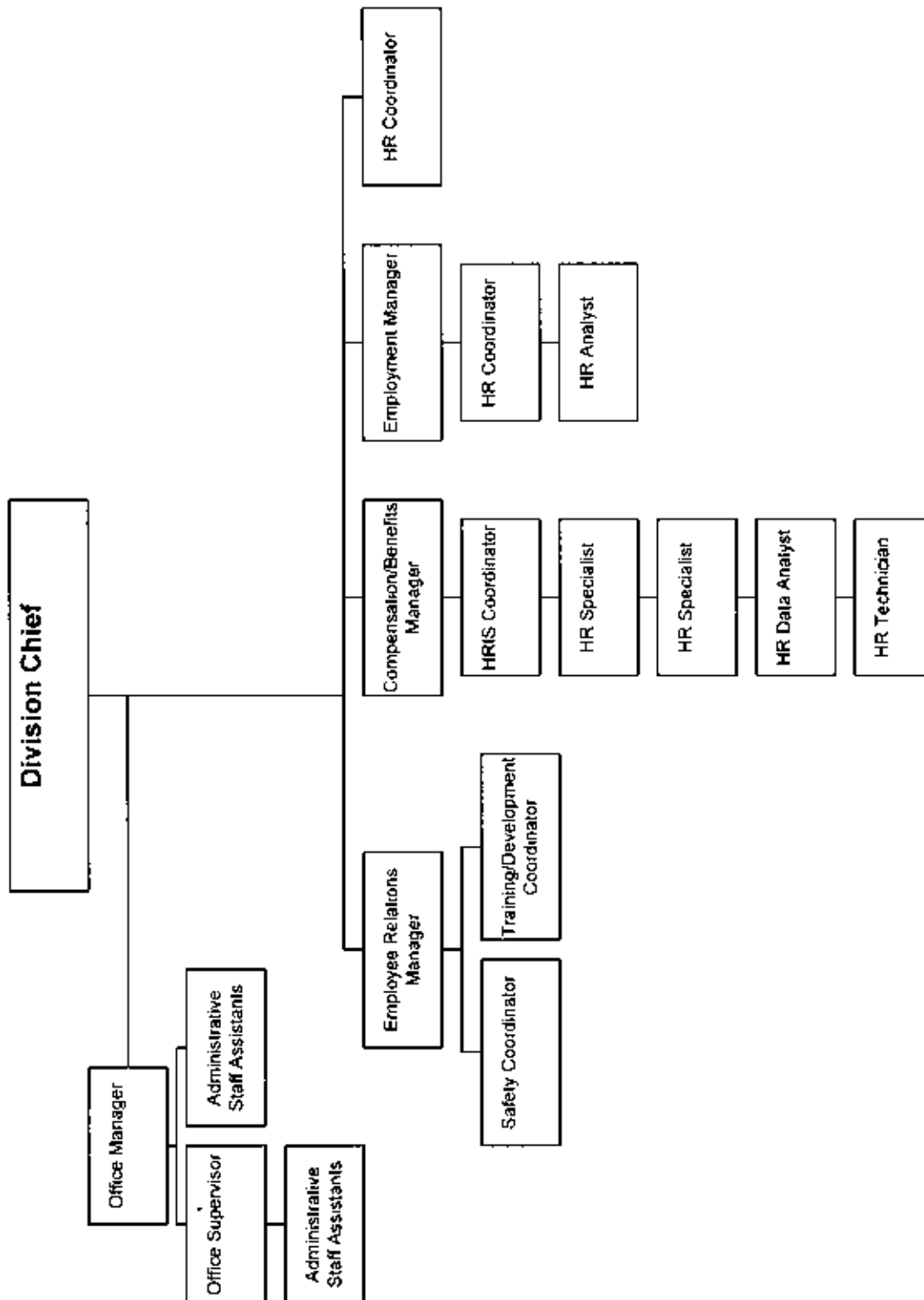
Urban and Community Forestry—This program provides planning and technical assistance to communities and homeowners. In addition, the Tree Resource Improvement and Maintenance (TRIM) program provided \$500,000 of cost-share assistance to more than 50 Missouri communities for tree planting and maintenance of their community forest resources. We have a partnership with the National Arbor Day Foundation to promote and administer the Tree City USA program. Missouri has 75 certified Tree City USA communities. We also work with the Arbor Day Foundation to provide training to electric utility right-of-way clearing crews through the Tree Line USA program. Ten utility providers are Tree Line USA certified.

Forest Products—The main goal of the program is to provide technical assistance to the wood products industry and promote Best Management Practices (BMP) for water quality on timber sales statewide. We work with the Missouri Forest Products Association to provide forest products utilization programs and activities such as the Professional Timber Harvesters and the Master Logger Certification program. Also, we work with entities interested in the emerging bio-energy field. Another important function of the program is to provide technical training for field foresters regarding wood use, timber harvesting techniques, contracting and implementing BMPs.

Outreach and Education—Forestry Division works closely with our Outreach and Education Division to increase Missourians' understanding about their state's forest resources and proper forest management activities. In addition, foresters conduct programs, field days and workshops for schools, special interest groups and the general public on a wide range of forest management issues.

State Forest Nursery—The nursery annually grows and distributes approximately 5 million seedlings of more than 60 species. The seedlings include trees and shrubs suitable for reforestation and wildlife habitat restoration activities. The seedlings are planted on both public and private land throughout the state.

Human Resources Division



Human Resources Division

Mission: *To sustain the human resources services and programs that are necessary for a diversified, dynamic workforce and for an organization considered an “employer of choice.”*

Goals

- Assist MDC in hiring and retaining a highly trained and diverse workforce
- Advance practices that encourage employee empowerment and recognize job accomplishments
- Ensure ongoing employee training and development programs are predicated on important job competencies and offered in the most efficient and cost-effective manner
- Reinforce safety-conscious attitudes and practices in all aspects of employee work

Programs

Compensation—Staff performs compensation and classification activities that are used to support an employee compensation program, which is both competitive and fiscally responsible. Staff also administers significant employee benefits programs such as a comprehensive medical and life insurance program.

Employee Relations—Staff coordinates activities promoting employee relations such as programs that recognize years of service, special achievement and retirement, and administers employee health and wellness programs that include health screenings and health education. Staff also assists employees and supervisors during grievance and corrective action processes to ensure that objective, fair and appropriate actions occur.

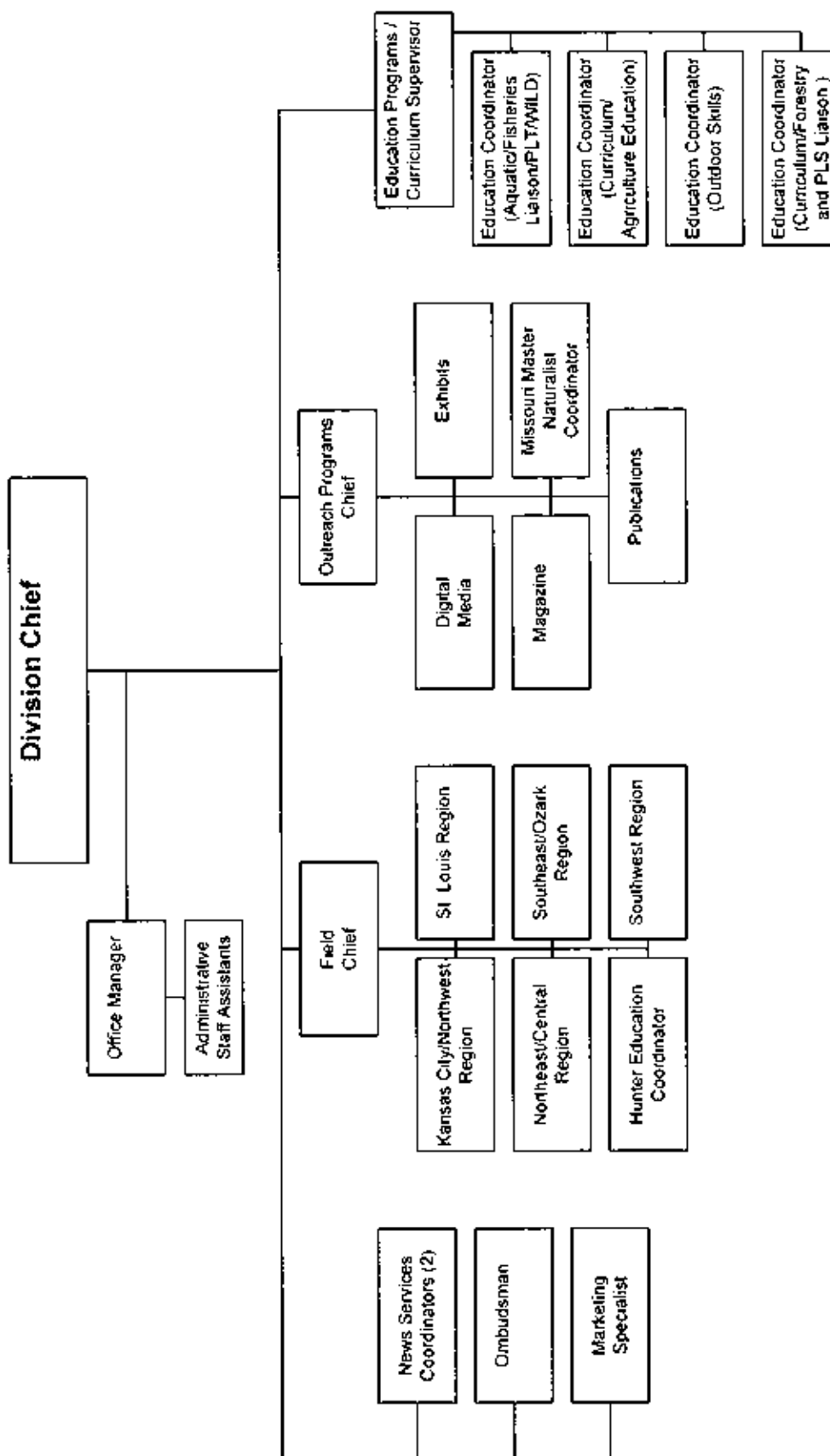
Policy Administration—Staff maintains MDC’s Human Resources Policy Manual by developing new or revised employment-related policies that help supervisors guide employees uniformly and fairly. Staff also tracks state and federal laws, executive orders, and regulations that address human resources management issues, and works to ensure MDC is in compliance.

Recruitment and Selection—Staff uses a variety of recruitment methods to attract qualified applicants for job vacancies and assists supervisors with all activities during the evaluation and recommendation processes. In addition, staff monitors MDC’s affirmative action effort to ensure equal employment opportunities.

Training and Development—Staff administers MDC’s employee development and leadership training programs. Among them is the Academy for Leadership Excellence, which provides training for all employees. The training is based on specifically identified competencies (knowledge, skills, behaviors and attitudes) that MDC considers important to success.

Safety—Staff administers loss-control programs including safety training, hazard identification on public lands, chemical safety, and personal injury, vehicle accident and public mishap reporting and monitoring.

Outreach and Education Division



Outreach and Education Division

Mission: *To help Missourians connect with nature and conserve it, too.*

Goals

- Teach Missourians how to sustain healthy plant and animal communities
- Provide Missourians of all ages with skills and knowledge to enjoy the outdoors
- Show the many benefits people get from conserving our fish, forests and wildlife
- Teach the importance of science and ethical behavior in balancing how we live with our fish, forests and wildlife
- Help Missourians understand these key concepts of conservation:
 - a. A healthy environment needs a diverse mix of plants and animals.
 - b. Forests, grasslands, rivers and wetlands are always changing—with or without us. To live in balance with the natural world, we must understand how it works and work with it.
 - c. It's natural for what's on the ground to flow downhill into streams and ponds. To protect the health of our waters and the life that depends on them, we must be mindful of what we put on the land and how we change it.
 - d. Hunting, fishing, trapping and harvesting wood are part of our heritage, provide us with valuable resources and, perhaps most important, are tools that can be used to improve and maintain the health of our fish, forests and wildlife long into the future.

Programs

Conservation Nature Centers, Education and Visitor Centers—These are located in Jefferson City, Kirkwood, Blue Springs, Springfield, Cape Girardeau, Winona, Glencoe, Branson, St. Charles, St. Louis and St. Joseph. Exhibits and naturalist-led programs, as well as walking trails, offer more than 1 million visitors each year a variety of opportunities to learn about and enjoy Missouri's nature. Although it is also an MDC facility focused on education, the Discovery Center in Kansas City uses a slightly different approach to reaching youth in an urban area. Six thematic classrooms provide students with a broad range of hands-on learning about conservation concepts and sustainable resources.

Shooting Range and Outdoor Education Centers—Five staffed shooting ranges provide safe, inviting places for hunters and others to practice shooting rifles, shotguns, handguns and archery equipment. In addition, a variety of conservation-related classes are offered to the public. These include woodworking for wildlife, orienteering, youth hunting and more. More than 100,000 people attend programs and use these facilities each year. In addition, more than 70 unstaffed ranges (including both firearms and archery ranges) serve Missourians throughout the state.

Teacher/Youth Leader Training—Conservation education consultants, outdoor skills specialists and education coordinators work with teachers and youth groups throughout the state. Teachers receive free conservation education materials and learn to incorporate conservation concepts and outdoor skills into their curriculum.

Hunter Education—Since 1988, hunter education training has been mandatory for all hunters born on or after Jan. 1, 1967. Our staff works with the conservation agents to coordinate volunteer hunter educators, who provide about 1,000 classes each year. These result in hunter certification of about 29,000 people annually. New online training expands hunter-education opportunities.

Grants to Schools—In recent years, about \$300,000 in grants has been provided to schools to develop outdoor classrooms, pay for teacher resources and for busing costs for conservation field trips. As part of the new "Discover Nature—Schools" program, grants for field trips, outdoor learning areas, instructional resources and outdoor skills equipment will complement the use of new learning units in the classroom.

Outdoor Skills Events (youth fishing/hunting clinics, Discover Nature—Women, Discover Nature—Families and partnership events such as 4-H Shooting Sports etc.)—Each year we present special public events to give thousands of Missourians of all ages a chance to learn hands-on skills so they can enjoy our great outdoors for years to come. In order to reach Missouri schools more effectively and consistently, Outdoor Skills specialists offer programs which focus on five outdoor skills areas: fishing; archery; firearm sports; map, compass and GPS; and a general area which addresses basic principles of safe outdoor experiences. The Missouri National Archery in the Schools program (MoNASP) is the archery program we offer to schools. Funding to help schools purchase equipment comes from MDC (\$400) and the Missouri Conservation Federation (\$100).

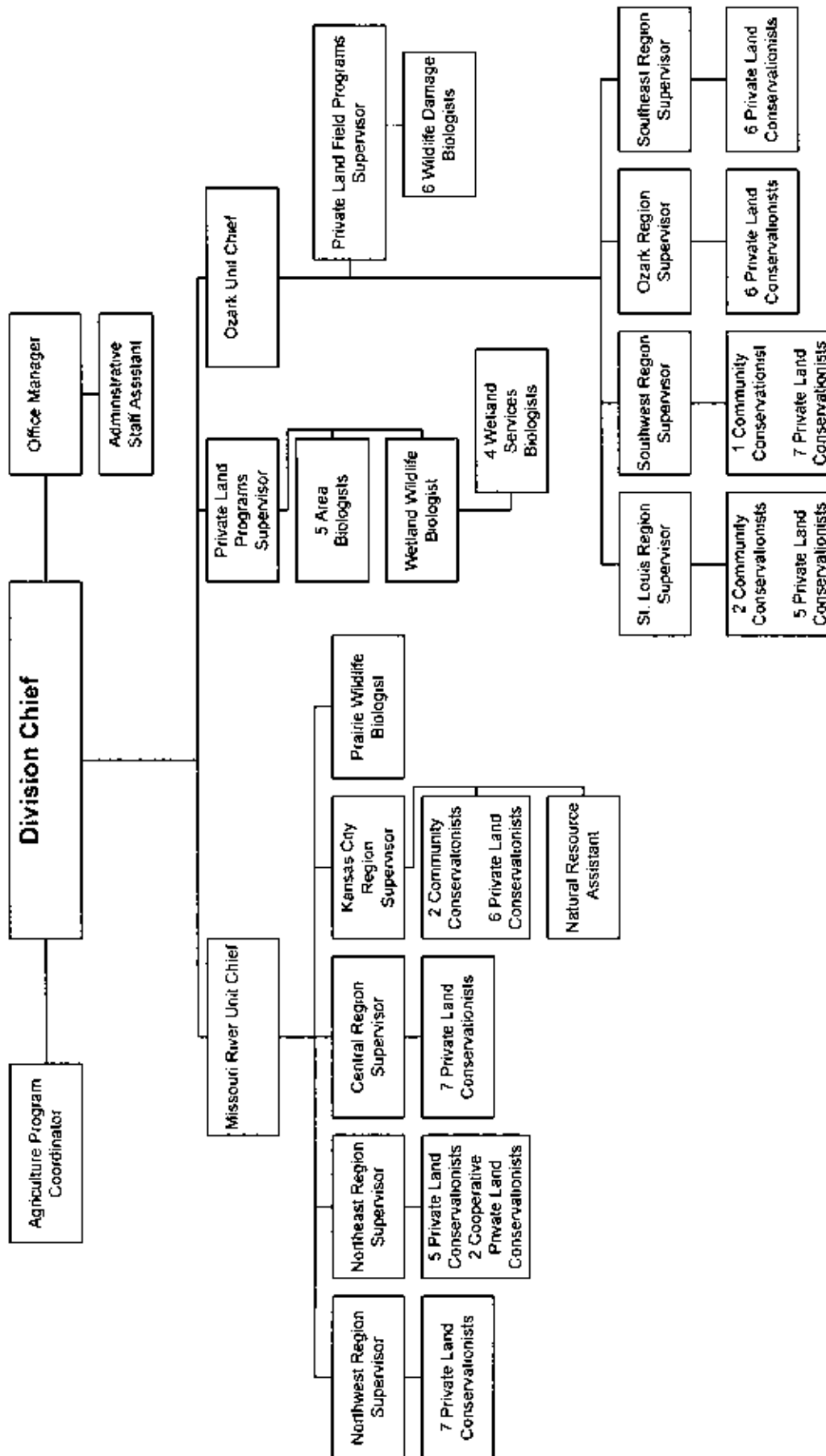
Missouri Conservationist magazine—Provides 25 percent of Missouri households with conservation information at their doorsteps 12 times a year. The magazine is mailed to more than 500,000 readers each month, as well as to Missouri schools. Each issue is also available on our Web site.

Web, News, Publications, Video and Audio Productions—It takes many kinds of media to provide information on conservation and all its related opportunities. We serve up millions of web pages each year, produce free publications and for-sale books, weekly news releases, loan the public dozens of videos/DVDs and provide local television stations with conservation-related footage. The information covers topics as diverse as bird identification, hunting and fishing regulations, and how to create wildlife habitat in an agricultural landscape. The information flows in as well as out; an ombudsman finds the answers to citizens' questions and helps to investigate concerns and resolve complaints.

Citizen Involvement/Awareness Programs (Grow Native, Missouri Master Naturalist, No More Trash)—In the past few years, several new programs to help Missourians promote conservation at a statewide and grassroots level have gotten underway. Three partners work with MDC to sponsor these (Missouri Department of Agriculture, University of Missouri Extension, and Missouri Department of Transportation, respectively).



Private Land Services Division



Private Land Services Division

Mission: *Help landowners meet their land management objectives in ways that enhance fish, forest and wildlife conservation.*

Organization: With 93 percent of Missouri in private ownership, the health of our natural resources will be determined by private landowners. In recognition of the need to provide enhanced support to traditional agricultural producers, as well as growing numbers of people who own land for recreation, Private Land Services Division was established in 1999. The division contains fish, forest, wildlife and agriculture professionals who provide conservation assistance to private landowners in Missouri.

Goals

- To provide timely technical advice to private landowners who request assistance, as well as help them locate financial assistance that could defray resource treatment costs
- To improve awareness of conservation issues/challenges, as well as methods of improvement
- To help interested private landowners achieve resource improvement that results in meaningful benefits to fish, forest and wildlife resources that need attention

Programs

Technical Support—Private Land conservationists are available to evaluate resource needs and provide advice/recommendations to private landowners through in-office or on-ground visits, as well as workshops, field days and other initiatives. Most of these positions are co-located in USDA service centers to make contact easy for private landowners in local communities throughout the state.

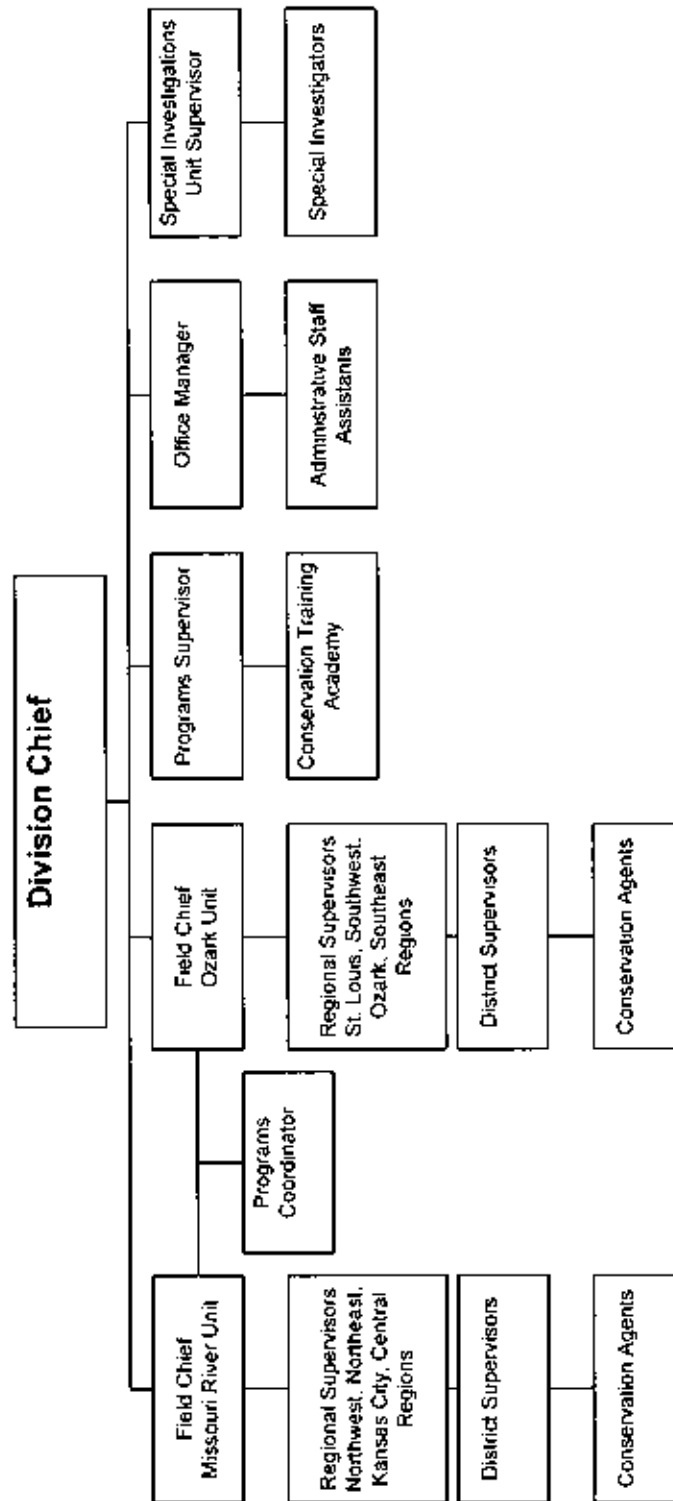
Financial Assistance—MDC has established effective working partnerships with the Natural Resources Conservation Service and Farm Service Agency to integrate fish, forest and wildlife considerations into implementation of Farm Bill programs that include Conservation Reserve program, Wetland Reserve program, Environmental Quality Incentives program, Grassland Reserve program, Conservation Stewardship program and Wildlife Habitat Incentives program. MDC is also in partnership with non-governmental organizations such as Ducks Unlimited, Quail Unlimited, the National Wild Turkey Federation, Missouri Prairie Foundation, Quail Forever and Pheasants Forever to develop cost-share and other initiatives through matching arrangements.

Wildlife Damage Assistance—Wildlife damage-control biologists provide expert and specialized technical assistance to private landowners who experience problems with wildlife including beaver, coyote, otter, Canada geese, deer and other species.

Agriculture Liaison—Liaison efforts with agriculture agencies and groups are offered to foster communication and understanding of fish, forest and wildlife issues as relates to agriculture. These efforts are very important since 65 percent of the land area of Missouri is included in farms.

Community Conservation—Community conservationists in Kansas City, St. Louis and Springfield/Branson/Joplin areas are available to deliver natural resource technical services at the municipal, county and regional levels. Their job focus is to work with communities, urban planners and developers to make informed land-use decisions that incorporate the conservation of Missouri's forest, fish and wildlife resources.

Protection Division



Protection Division

Mission: *To protect and conserve Missouri fish, forest and wildlife resources and to serve citizens through a co-ordinated program of resource law enforcement, education, information and one-on-one contacts.*

Goals

- To provide high-quality resource law enforcement services to the public for protection and conservation of Missouri's fish, forest and wildlife, as well as for safe and proper public uses of conservation areas
- To provide opportunities for all citizens to use, enjoy and learn about fish, forests and wildlife through educational and informational programs and habitat management advice
- To represent the Conservation Commission, Department of Conservation and the state with knowledgeable, respectful, well-trained and professional employees versed in all general MDC programs in every county

Programs

Conservation Agents—Agents carry out a variety of programs for MDC within their county assignments. Major job components are resource law enforcement activities; hunter education; local media liaison duties (many with regular radio/TV programs and newspaper articles); educational and informational presentations to adult and youth groups; wildlife surveys; response to fish kills, wildlife nuisance and damage complaints; and basic fish, forest and wildlife management advice and services to private landowners.

Conservation agents contacted 209,000 hunters and anglers in FY08 to ensure compliance and to provide regulation information. During these contacts, agents noted 29,800 violations; issued 4,100 written warnings; and made 8,700 arrests. This depicts a 93 percent conviction rate, which indicates high-quality work and excellent public support by agents in the area of resource law enforcement.

Operation Game Thief—Operation Game Thief provides a way for citizens to anonymously report poaching incidents with the opportunity for a monetary reward. In FY08, OGT produced 348 convictions from 1,031 telephone calls, which resulted in \$12,350 in reward money being paid to informants. The new Operation Game Thief traveling exhibit was used 120 days throughout Missouri this past year.

Revocations—Missouri is a participating state in the Interstate Wildlife Violator Compact (IWVC). The compact is a legal organization of the wildlife agencies of 30 member states that agree to reciprocally honor revocations/suspensions of hunting, fishing and trapping privileges for wildlife-related violations. During the last fiscal year, 1,887 people from other states had their privileges revoked in Missouri through provisions of the Interstate Wildlife Violator Compact; an additional 153 were revoked for cause by the Conservation Commission in Missouri and submitted to the IWVC. Participation in the compact also benefits Missourians who travel to other compact member states for hunting and fishing activities. If found in violation, they may be given the opportunity to resolve the citation by mail rather than being required to post a bond before leaving the member state. They are subject to revocation by all compact states if the citation is ignored.

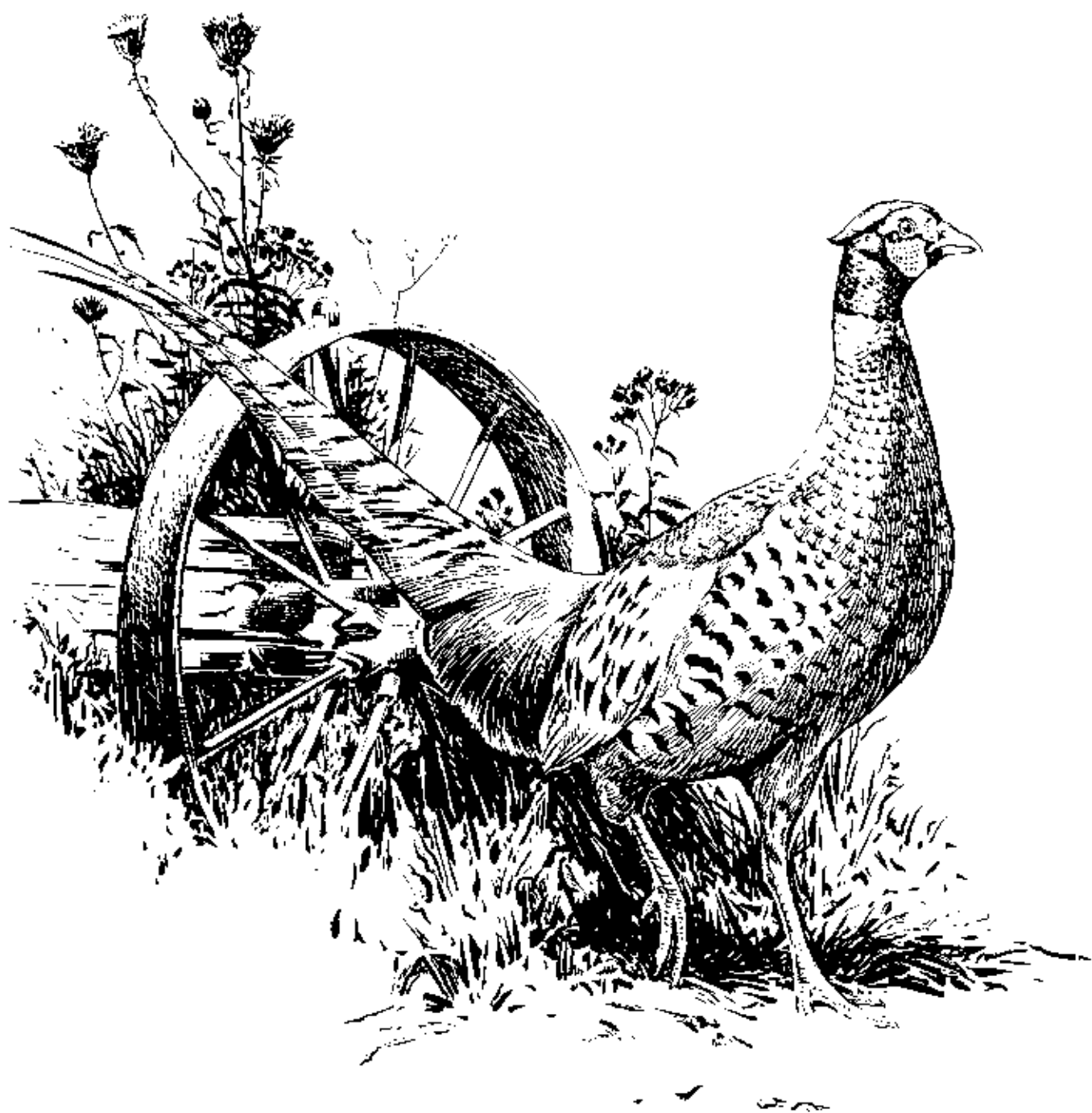
Missouri Seed Program—The Missouri Seed program provides habitat-planning information and food-plot seed to Missouri landowners. The goals of the program are to improve the quality of wildlife habitat on private lands and promote better farmer and landowner relations. Conservation agents distributed 88,120 pounds of seed to 2,636 landowners. The program is an avenue through which to contact private landowners regarding wildlife management programs, as well as other programs which MDC offers. Protection and Private Land Services divisions share in the administration of the program.

Hunter Education—Hunter education certification is required for purchasing any type of Missouri firearm hunting permit for people born on or after Jan. 1, 1967 (except the youth deer and turkey hunting permit). Conservation agents work with Outreach and Education division personnel and approximately 2,000 volunteer instructors to coordinate hunter education courses in all 114 Missouri counties. Protection Division personnel are also heavily involved in investigating every hunting incident in the state.

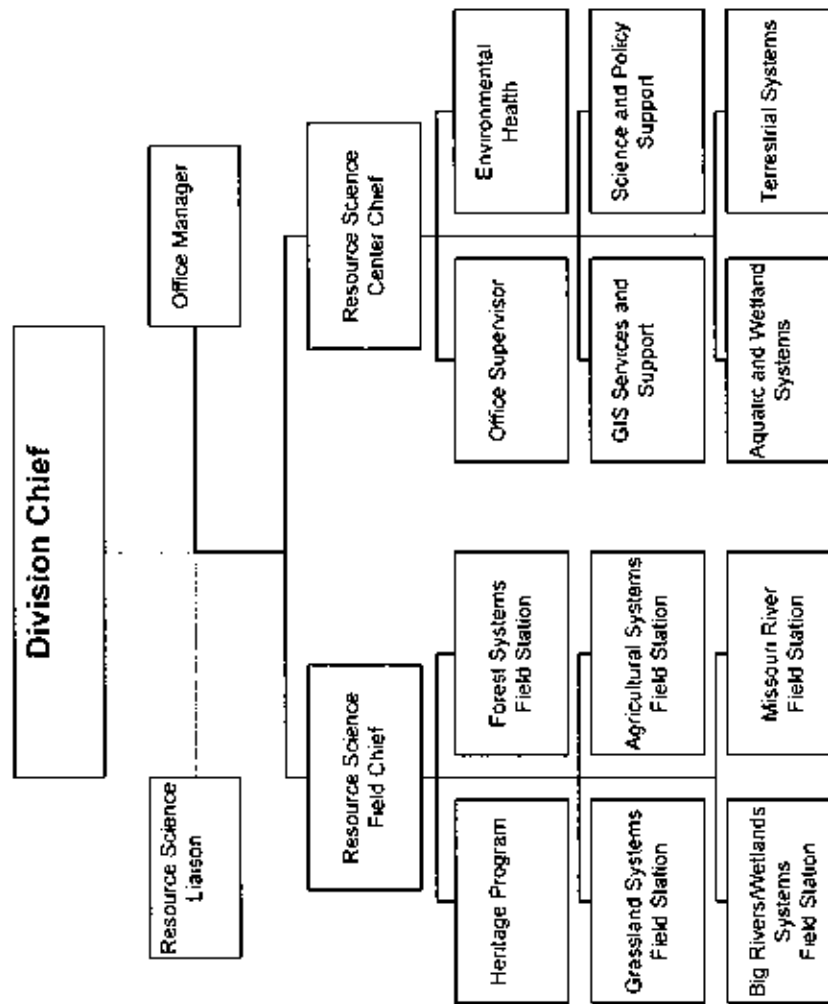
Hunting Method Exemption Program—The Hunting Method Exemption program provides special exemptions to physically disabled people by allowing them to hunt and take wildlife by methods not otherwise legally permitted. During FY08, 3,055 hunter method exemptions were approved for Missouri hunters.

Group Fishing Permit Exemptions—Protection Division administers permit exemption authorizations to supervised groups involved in rehabilitation programs or groups of hospital patients or people with disabilities under therapy or for educational purposes. During this past fiscal year, 260 group-fishing permits were issued for outings, providing fishing experiences to people who otherwise may not be able to participate in outdoor fishing activities.

Share the Harvest—Conservation agents and the Conservation Federation of Missouri coordinate the Share the Harvest program, in which hunters may donate deer meat to those in need through established charitable organizations. During FY08, approximately 5,569 hunters donated 260,908 pounds of venison to needy Missourians. Since the inception of the program, nearly 1.7 million pounds of deer meat have been donated to Missouri citizens. Hunters donating venison to the program pay for the processing and tell the processor how many pounds of meat they want to donate. Hunters who wish to donate their entire deer may receive a \$35 reduction in the price of processing, which is paid to the processor by the Missouri Conservation Federation. In some cases, local organizations provide additional funds for processing so there is no cost to hunters who wish to donate deer.



Resource Science Division



Resource Science Division

Mission: *Provide the science-based information needed to conserve, appreciate and effectively manage the living resources of Missouri.*

Goals: Natural resource management is based on sound biological, geographical and sociological information. An objective to establish a nationally recognized, science-based model for conservation will be accomplished by 1) ensuring ongoing development of a comprehensive and integrated understanding of Missouri's living resources and their values to society, 2) using accumulated knowledge to inform and recommend conservation actions, 3) evaluating the biological and social impacts of conservation actions and 4) reporting emerging knowledge of Missouri's living resources.

An integrated focus in Resource Science Division is organized around six systems and functions rather than traditional disciplines, and is dedicated to delivery of management assistance through five field stations; this approach was the basis for the following organizational units within the division (see organizational chart):

Terrestrial Systems staff strives to understand plant- and animal-habitat relationships, monitor population status and develop harvest- and species-management recommendations. Staff is regularly involved with specialized projects to monitor wildlife, plant diversity, population changes and forest silviculture.

Aquatic and Wetland Systems scientists conduct research and surveys that center on issues involving fisheries management, wetland and waterfowl management, fish communities, watersheds, stream-riparian-floodplain systems, reservoirs, in-stream flow and interactions among predators and prey and species of concern. Harvest management recommendations for statewide fish populations, waterfowl and other migratory birds are developed by this group.

Science and Policy Support staff works to link and improve access to databases which document Missouri's rich biodiversity through a web-based archival and retrieval system. Post-season harvest hunter and angler surveys, attitude surveys and public-use surveys are conducted to better understand the opinions and attitudes of Missourians and to ensure that human dimensions information is integrated with biological information to inform management decisions. Natural resource economics data is collected in conjunction with the public use and attitude information. Biometricians ensure statistically sound study designs and the use of appropriate statistical techniques to analyze and interpret complex natural resources questions.

Geographic Information Systems (GIS) will continue to play an ever-increasing role in natural resources management, planning and evaluation. The goal of the GIS program is to fully use geospatial technology and products to support natural resource decisions, archive the processes and evaluate the results. The GIS program supports more than 300 ArcInfo and ArcView users. Monthly training courses are conducted to help train new ArcView users and improve the skills of existing users.

The **Environmental Health** unit primarily provides the services that ensure monitoring and protection of Missouri's forest, fish and wildlife resources. Primary functions include protecting aquatic biodiversity such as mussel conservation and genetics research, water quality, forest health, and providing responsive service to agency staff, the public and other agencies and entities. Staff coordinates pollution and fish kill investigations with the Department of Natural Resources, and monitors contaminants in fish with the Department of Health.

The **Heritage Program** unit provides expertise and location information to MDC, its partners and the public on plants, reptiles and amphibians, karst communities, mammals and species of conservation concern. Our vehicles are workshops, publications, personal contact and Missouri's Natural Heritage program. Through this program, we track the status and presence of 1,116 species of concern and natural

communities. We survey for species presence and population trends, develop life history information, and made management evaluations. We ensure accurate documentation and archiving of occurrences of species of concern and natural communities that can be used for regulation purposes and management.

The **Field Unit of Resource Science Division** is leading regional management evaluations by developing protocols and study designs with the goal of “learning by doing.” Field stations, actively integrated with the division’s centralized functions, focus on improving understanding of ecological systems, functions and processes by working with regional staff throughout the state.

- 1) The **Grasslands Systems Field Station in Clinton** focuses on ecological processes and management implications for cool- and warm-season grass pastures and hay lands, native prairie, savannas and glades and grassland-associated fish, invertebrate, wildlife species of conservation concern and all streams and impoundments fed by grassland watersheds.
- 2) The **Forest Systems Field Station in West Plains** focuses on ecological processes and management implications for upland forests, glades, savannas, springs, karst, fens and cold- and warm-water streams and impoundments drained by forested watersheds and management of forest-associated fish, invertebrate and wildlife species of conservation concern.
- 3) The **Big Rivers and Wetlands Systems Field Station in Jackson and Puxico** focuses on Missouri’s large rivers and associated floodplains to understand landscape-level ecological processes. Staff develops tools and strategies to improve channel and floodplain habitats, bottomland forests and wetlands for fish, invertebrate and wildlife communities including species of concern.
- 4) The **Agricultural Systems Field Station in Kirksville** emphasizes annually cropped lands that produce cereal grains, oil crops, crops for human consumption and annually planted livestock forages. Also included in the field station’s focus are retired crop lands including CRP plantings, cool-season grass pastures and old fields, concentrated livestock operations and streams and impoundments drained by agricultural watersheds and management for agricultural-associated fish, invertebrate and wildlife species of conservation concern.
- 5) The **Missouri River Field Station in Chillicothe** focuses on issues directly related to management of the Missouri River. Many aspects of large-river ecology will be addressed by the Big Rivers and Wetlands Field Station, including some important to the Missouri River. However, several active restoration and recovery programs are being conducted along the Missouri River, and this field station will bring a focused and coordinated monitoring approach among agencies to help clarify the success of these activities.

Programs

Population management—Manage for, and when feasible, restore viable populations of plants, fish and wildlife compatible with the ecological capability of the land and balanced with the desires of resource users and the public.

Resource Science Division identifies priority population management challenges and develops recommendations, in collaboration with resource divisions, to manage harvested species, species of concern and invasive species.

Ecological processes—Increase our understanding of the processes that determine habitat conditions for native and introduced animals and plants.

Erosion and deposition through water, wind and fire are the natural disturbance and renewal processes that are essential to maintaining healthy systems and functions. The division focuses investigations on how to effectively re-establish or mimic these processes in Missouri’s contemporary landscape to ensure restoration and management of plant and animal communities.

Management evaluation—Ensure that results of management and policy actions are measured and appropriately linked to resource-related outcomes, budgets and staff time.

Ongoing evaluation of resource responses and resource uses are essential to determine whether goals are met and to understand when change is needed. Resource Science Division promotes “learning by doing” to improve resource management programs and to ensure accountability of staff and budget resources.

Human dimensions—Provide and promote the use of human dimensions information in the management decision process.

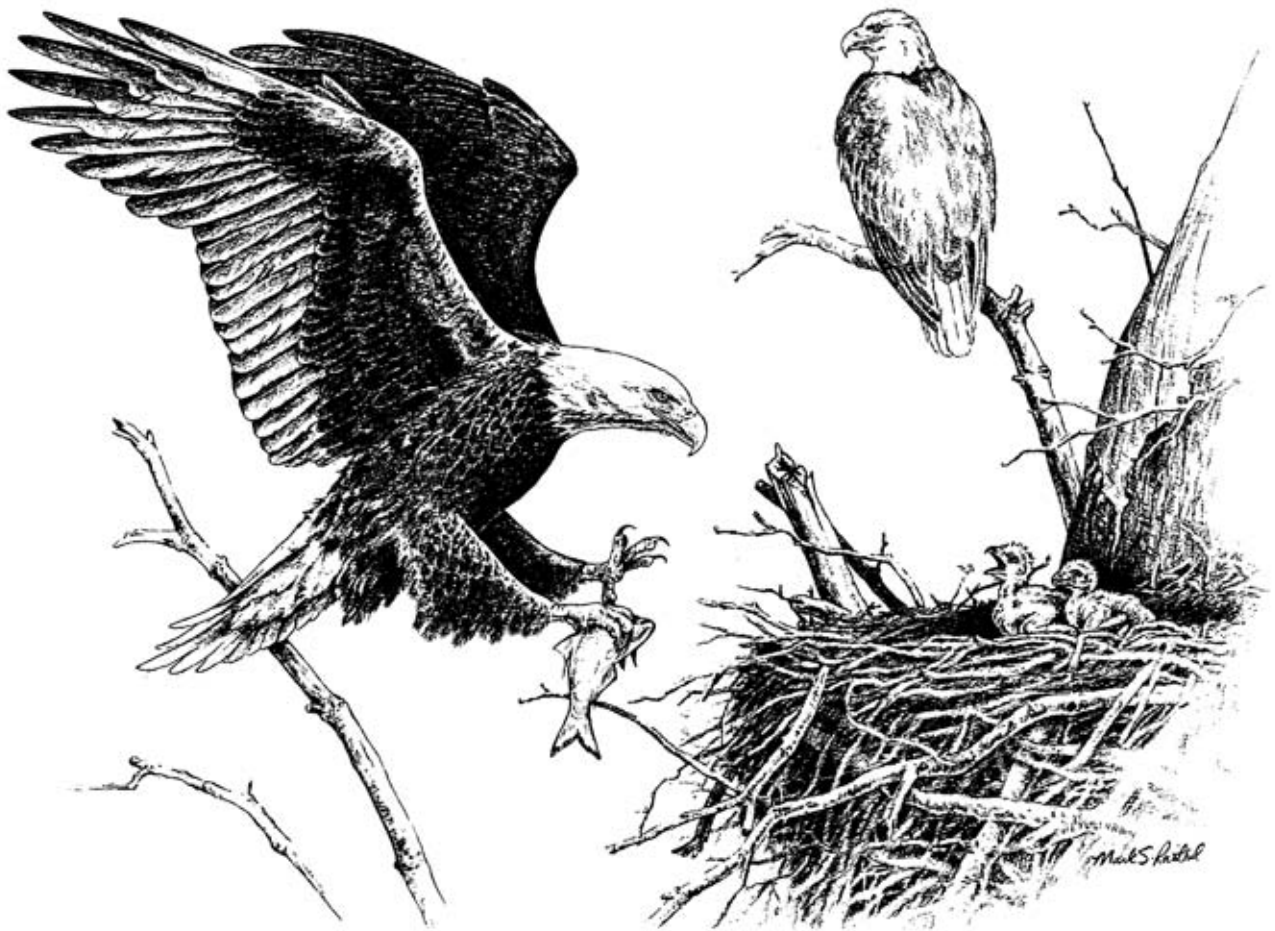
Resource Science Division collaborates with other divisions to ensure that human dimensions information is acquired and used in policy and management decisions. This information is used to track changing public expectations, anticipate demographic trends, and ultimately provide the information needed to make resource policy and management judgments.

Large-scale planning—Ensure that all planning and program efforts are based on sound science and include evaluation measures.

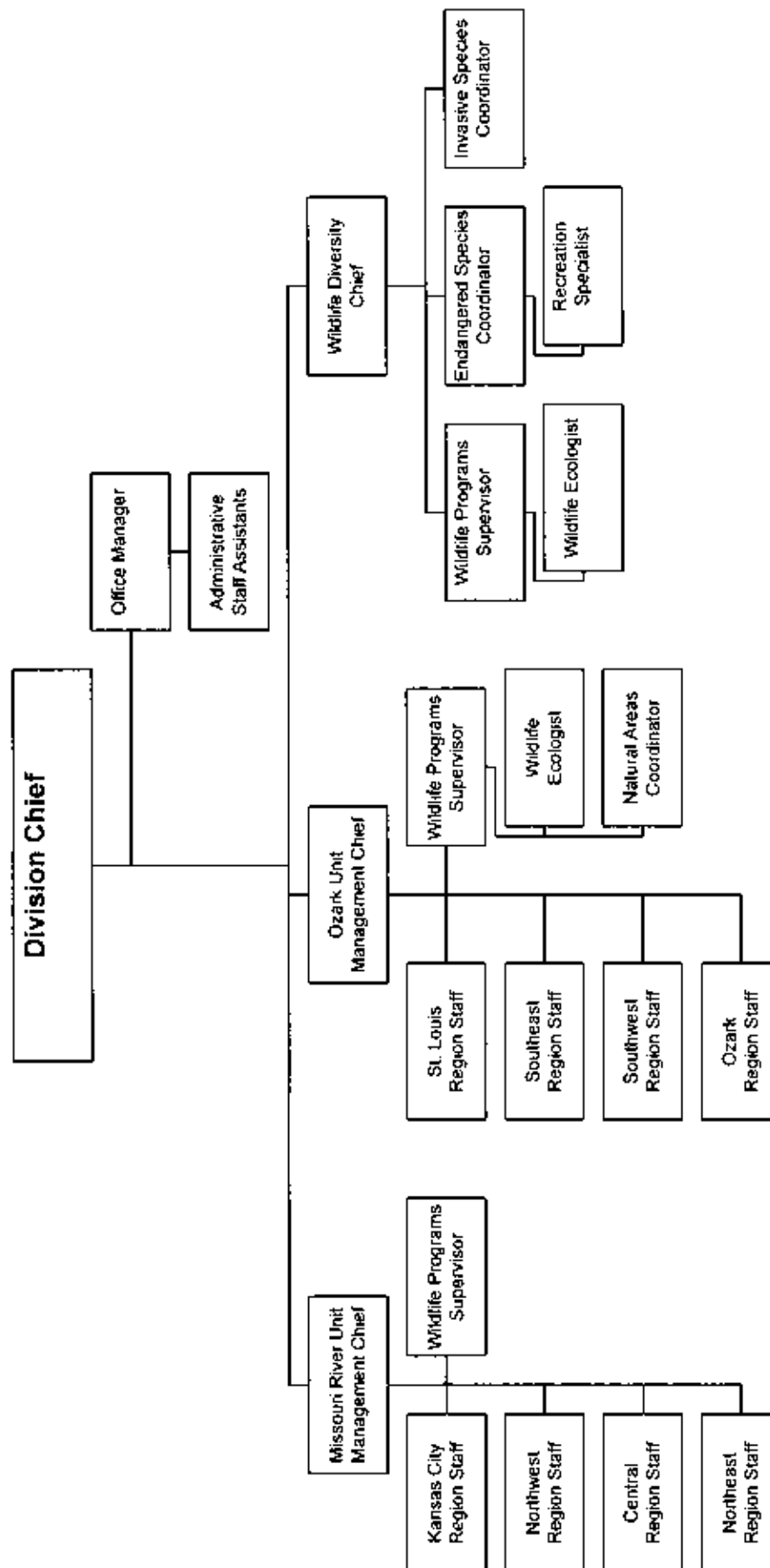
Advances in Geographic Information Systems and associated ecological and geospatial applications (e.g., Ecological Classification Systems) are used to inventory, assess and monitor resource condition and management results at national, state, regional and area scales.

Information transfer—Manage, share and transfer data collected in a useful, archived and easily obtainable format.

The division ensures that information about resource investigations, population status, harvest and public use is timely, current, accurate and available in a form that is useful.



Wildlife Division



Wildlife Division

Mission: *To conserve for public benefit Missouri's wildlife resources and the landscapes on which wildlife depend, and to manage public lands to conserve and enhance their natural resources, provide vital ecosystem services, and invite public use and enjoyment.*

Goals

- Balance wildlife resource needs with public expectations
- Advocate wildlife and biological diversity in conservation efforts
- Actively seek ways to inform peers, cooperators and citizens about wildlife stewardship
- Provide opportunity for all citizens to use, enjoy and learn about wildlife and their habitats
- Manage conservation areas that provide opportunities for citizens to recreate and enjoy the outdoors

Programs: Wildlife Division is responsible for the management of Missouri's wildlife resources and the habitats upon which they depend to best serve the long-term interests of the people of the state. Fulfilling this role involves a wide range of programs and activities on public, as well as private, land.

Strive for wildlife diversity through natural community management/restoration on MDC lands

- Manage MDC's Wildlife Diversity program in a way that benefits the full range of MDC programs and Missouri landscapes
- Continue support of the Missouri Natural Areas program
- Continue to coordinate MDC's endangered species program
- Restore natural communities on MDC lands, especially native grasslands and wetlands
- Continue a renewed focus on the "active management" of wildlife habitats and plant/animal communities on MDC lands
- Ensure that aquatic species are profiled in agency wildlife diversity efforts, especially the State Wildlife Grant and Landowner Incentive programs
- Implement the directions outlined in MDC's Strategic Guidance for Northern Bobwhite Quail Recovery
- Implement management programs on conservation lands that feature priority focus areas for bird conservation as outlined in Partners in Flight, Joint Venture plans, and Important Bird Area recommendations

Develop and strengthen effective conservation partnerships

- Administer Missouri's Comprehensive Wildlife Strategy, an approach to conservation planning and implementation within a framework of partnerships to integrate conservation action for all wildlife statewide
- Administer state wildlife grants to improve opportunities for MDC to work with conservation partners to conserve species with the greatest conservation needs
- Continue to promote all bird conservation in Missouri through participation in the Missouri Bird Conservation Initiative, within the framework of 41 organizations and private citizen partners
- Assemble the conservation partnerships necessary to secure grants and other funding for rehabilitation of wetland management structures on the oldest wetland management areas through the Golden Anniversary Wetlands initiative
- Form partnerships with landowners for wildlife stewardship on private land through the Landowner Incentive program and provide technical support through personal landowner contacts
- Continue to focus on grassland birds, especially prairie chickens, to enhance existing and future partnerships with communities near their habitat

Coordinate MDC invasive species activities in conjunction with other affected/involved divisions

- Integrate the coordination of invasive and exotic species control into agency Wildlife Diversity programs
- Control invasive/exotic species on conservation lands, especially in natural communities, while taking actions where appropriate to control the introduction of new invasive/exotic species to MDC lands

Public Resources Management—MDC area facilities/infrastructures maintained and operated in a way that invites public use

- Ensure that conservation area facilities are clean and operated in ways that welcome citizen visitors to the areas
- Maintain infrastructures of all types in ways that enable them to meet their use expectations
- Administer the Wildlife Restoration Grant in ways that provide federal support for operations, maintenance, habitat management and resource planning on conservation lands
- Promote Adopt-A-Trail groups to help with trail maintenance
- Develop mourning dove habitats as a means to attract doves and hunters to MDC lands, using FY05 results to improve program effectiveness and efficiency
- Provide special recreational opportunities through deer, dove, turkey and waterfowl managed hunts

Deer populations balanced with the interest and tolerance of landowners, hunters and the general public

- Manage conservation area deer-hunting programs in ways that provide a range of hunting opportunities for deer hunters as outlined in the deer strategic direction statement
- Ensure that deer populations on conservation areas do not create problems for neighbors
- Assist private landowners with deer-harvest management programs on private lands

Manage forests on MDC lands that promote forest health, sustainable wood products, wildlife habitat and ecosystem restoration

- Continue efforts to assist Forestry Division staff in the attainment of agency timber-management objectives
- Actively pursue opportunities to use timber harvests as a means to attain natural community restoration objectives, especially for oak-pine woodlands, savannas, glades and prairies
- Assist Forestry in natural area management activities, such as prescribed burning, on Forestry areas

Conservation by the Numbers

- ▲ Actual Funds Available and Disbursements
- ▲ Number of Deer Harvested by County
- ▲ Number of Turkeys Harvested by County
- ▲ Acres of Conservation Land by County
- ▲ Payment In-lieu of Taxes (PILT) by County
- ▲ County Aid Road Trust (CART) Program
- ▲ Capital Improvement Projects Funding by County
- ▲ Number of Deer and Turkey Permit Holders by County of Residence
- ▲ Number of Fishing Permit Holders by County of Residence
- ▲ Number of Small Game Permit Holders by County of Residence
- ▲ Number of Landowner Deer Permit Holders by County of Residence
- ▲ Number of Landowner Turkey Permit Holders by County of Residence

MISSOURI DEPARTMENT OF CONSERVATION

Actual Funds Available and Disbursements For Fiscal Year 2008

RECEIPTS

Sales Tax	\$102,940,809
Hunting, Fishing & Commercial Permit Sales.	29,395,326
Federal Reimbursements	18,563,048
Agricultural Sales	1,706,749
Timber Sales.	3,057,074
Other Miscellaneous Receipts	7,245,585
Miscellaneous Fees & Tags.	1,402,241
Surplus Property.	925,232
Interest	1,755,844
Publication Sales.	760,106
Nursery Stock Sales	922,837
Grants, Gifts, Bequests & Donations	1,083,646
Contractual Services.	406,056
Rentals	45,831
Miscellaneous Sales	245,592
Land Sales.	324,998
Yield Tax & Other taxes	20,986
Refunds.	1,122,230
Damage Reimbursements	19,476
Concession Income	<u>9,738</u>
TOTAL RECEIPTS	\$171,953,404

DISBURSEMENTS

County Assistance Payments	\$1,451,829
Capital Improvements	16,165,002
Fisheries	12,444,886
Forestry.	16,071,586
Wildlife	16,640,868
Outreach & Education	15,412,405
Private Land Services.	8,992,253
Protection	13,879,942
Resource Science	11,677,559
Regional Public Contact Offices.	3,199,101
Administrative Services and Human Resources	36,009,544
Design & Development	12,149,619
Administration	<u>3,198,077</u>
TOTAL DISBURSEMENTS	\$167,292,671





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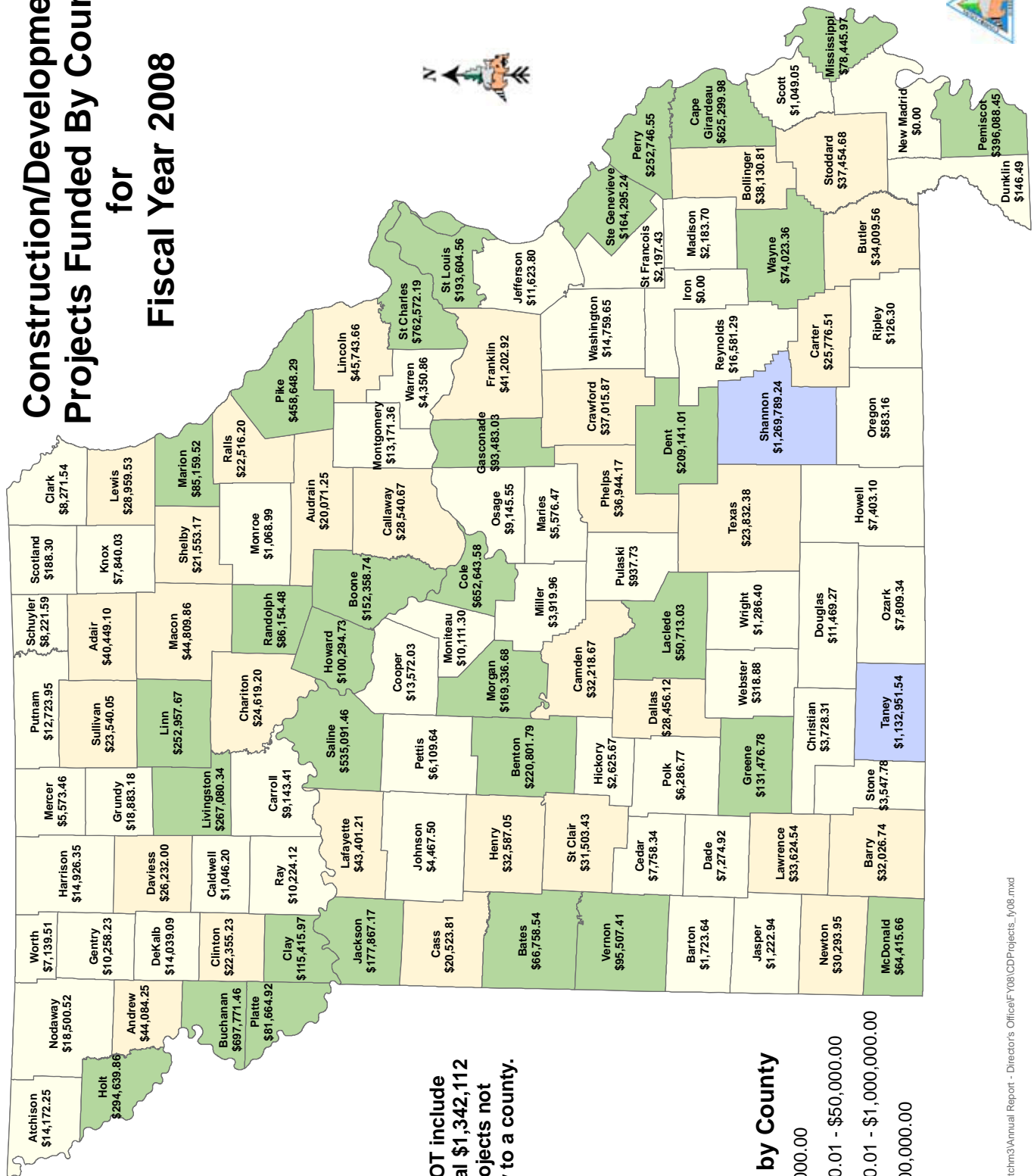




Established in 1983, this program allows for cost share (usually 50% with a county's match being in-kind services) of roadway maintenance with counties and other neighboring landowners. The focus of the program is to help ensure area roads are properly maintained and the public has adequate access to Conservation Areas.



Construction/Development Projects Funded By County for Fiscal Year 2008





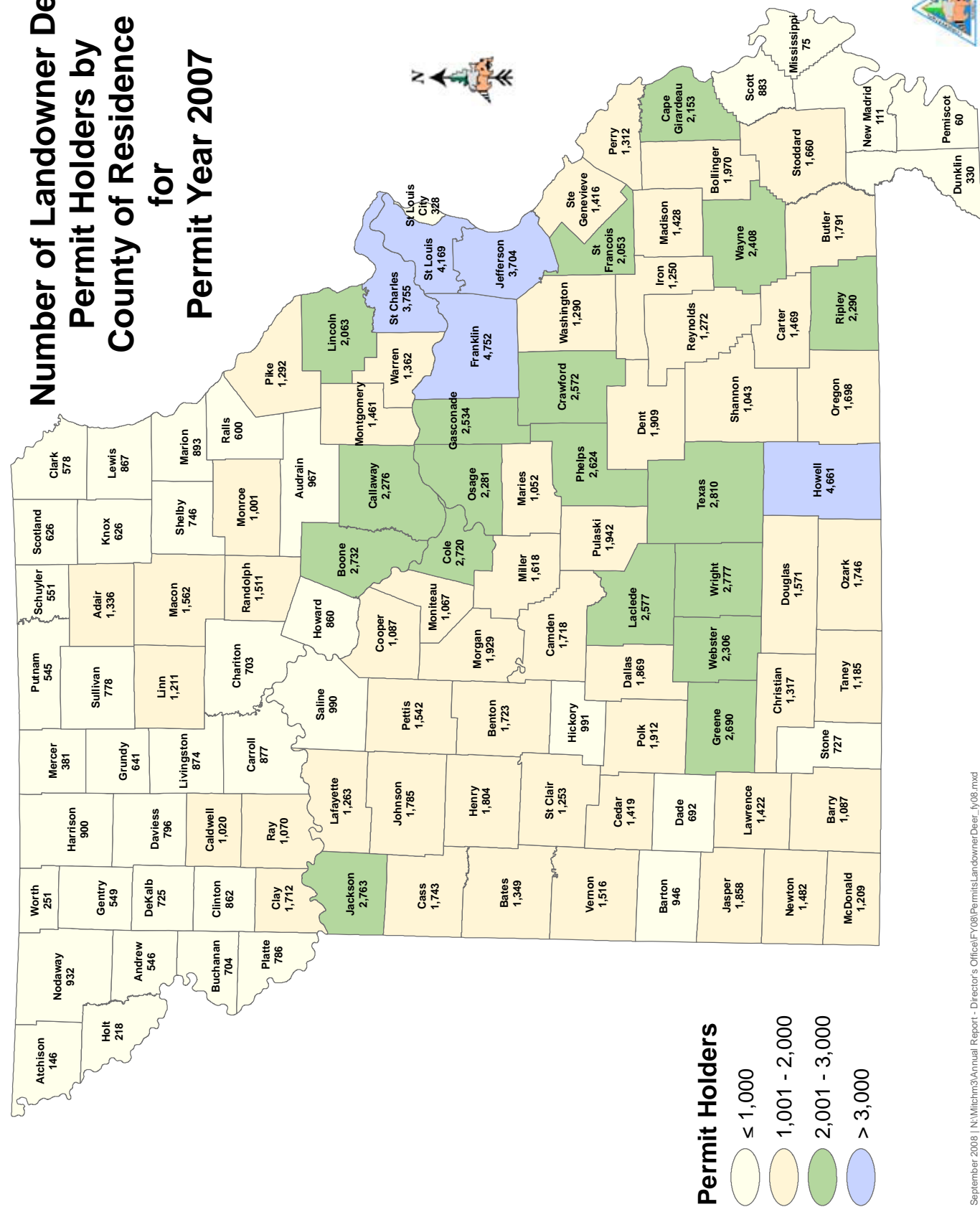
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Permit Year 2007

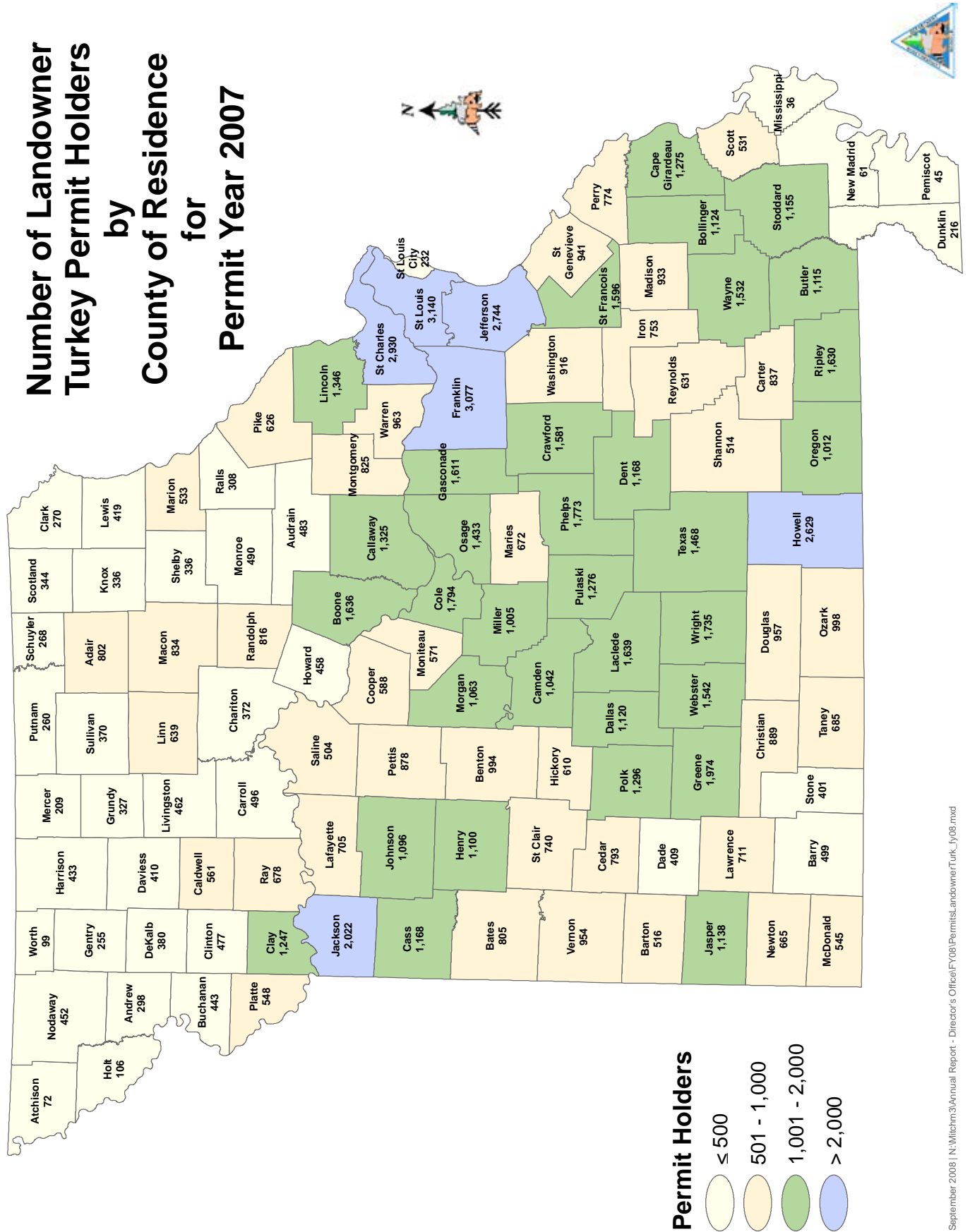




Number of Landowner Deer Permit Holders by County of Residence for Permit Year 2007



Number of Landowner Turkey Permit Holders by County of Residence for Permit Year 2007



Excellent public service is
what we will provide.

Employees are
the Department's most
important resource.



All citizens are important;
we value their trust and
their point of view.

Fairness, objectivity, sound science,
integrity and accountability will
guide our actions.

Missourians are our
partners to achieve
conservation success.